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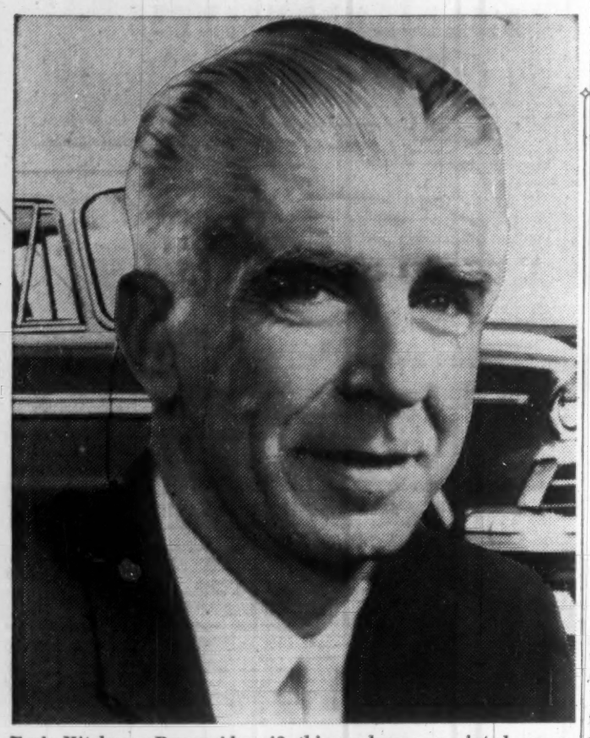
Another Auto Maker



Earle Kitchener Brownridge, 43, this week was appointed executive vice-president and general manager of American Motors (Canada) Ltd. As operating chief, he will steer the company back into Canadian production after a three-year lapse. The company reached a postwar high in sales in Canada last year.

NATION'S BUSINESS

Coyne's Medicine Can Be Bitter

James E. Coyne, governor of the Bank of Canada, is convinced that if we continue to live grandly beyond our means, as he thinks we do now, we do so at great peril to prosperity.

This week in Winnipeg he labeled Canadian spending on proud new projects—on new roads, schools, pipelines, seaways, new plants, new equipment—excessive and inflationary.

He declares that we have poured too great a volume of capital, much of it borrowed abroad, into the development of facilities for our comfort and enjoyment. Result: Foreign debt has grown faster than truly productive facilities. We're heading pellmell for a foreign-exchange and foreign-trade crisis, if we persist.

We have to scale down capital spending and foreign borrowing, Coyne says. But this apparent prescription for this country's ills make for bitter medicine. For example:

1. The construction industry, especially builders of residential housing, could get it in the neck. Fewer new houses and there would be less municipal borrowing for such "comforts" as streets and sewers.

2. Resource developers might find their borrowing needs were smaller; governments had become increasingly sticky about licenses, mining rights and what have you.

3. Union officials might well find that Ottawa had swerved away from full-employment policies. Federal deficits to ease recessions would probably be small.

4. Everyone might as well get used to a high tax rate. It's the only way that a bigger portion of current expenditures can be financed without jacking up debt.

The hoped-for result of such dramatic belt-tightening, if it took place, would be an economy growing steadily without inflation—an economy supremely able to meet its foreign obligations and compete in foreign markets.

Whether Mr. Coyne is teaching, or preaching or forecasting the coming climate for business doesn't much matter. He is one of the few men in Ottawa who is squarely facing the great Canadian dilemma—high living standards and high costs in an exporting nation—and feeling his way toward sensible, responsible solutions. And his views often foreshadow those of the government.

But before swinging its weight in the direction of any such economic policy, Ottawa might ask itself this question: Can Canada compete with countries which have lower living standards, lower wages, longer hours—and carry any more excess baggage of a welfare state?

Fast growth, high costs and high prices in an exporting country may be dangerous, but politicians who flirt with inflation by selling Canadians on bigger and bigger services and subsidies are encouraging national folly.

* * *

Deeds Still Count

The new session is likely to mark the mid-point of the present Parliament's life.

It was elected on March 31, 1958; and if Mr. Diefenbaker follows recent practice, he may be expected not to delay the next election beyond 1962. This feeling of mid-term lassitude may account for the relatively standpat attitude which the government seems to be adopting on many major matters. It is certainly suggested by the Speech from the Throne.

One of the strangest omissions from the Speech from the Throne, besides the failure to mention defence, was the absence of any word about finance and economic policy. Mr. Fleming has been making a series of speeches which amounted almost to a small campaign to increase public understanding of the realities he is now facing.

There are signs that they have had a useful effect, helped to restore confidence in the direction the government is heading, and damped down some of the unrealistic demands for fresh government spending.

It is a pity that the prime minister did not put the government's formal endorsement on Mr. Fleming's policy in a paragraph of the Throne Speech.

The omission need not be taken too tragically, for actions still speak louder than words. And the relatively modest legislative program announced by the government fulfills, so far as it goes, the principles Mr. Fleming has been enunciating about restraining government spending. New spending projects are remarkable by their absence; and that is very much to the good.

TEST CASE

See No Strike On the Seaway

Hundreds of inland communities will breathe easier, but the raises will cost plenty . . .

By CLIVE BAXTER

Final details were being negotiated this week on a contract that would rule out the chance of a Seaway strike this spring.

St. Lawrence Seaway Authority would give raises to some 900 employees that man and operate the locks and canals.

It would be a significant breach in the government's hold-the-wage-line policy. Initially the authority had refused any increase, citing the decision not to increase civil service wages as its precedent.

More details of the government's dilemma, p. 26.

Talks with the Canadian Brotherhood of Rail, Transport & General Workers broke down and two weeks ago a federal conciliator was called into discussions.

It was viewed as an important test case by both sides. The men had only recently ceased to be rated as civil servants and this was their first contract negotiated by the union.

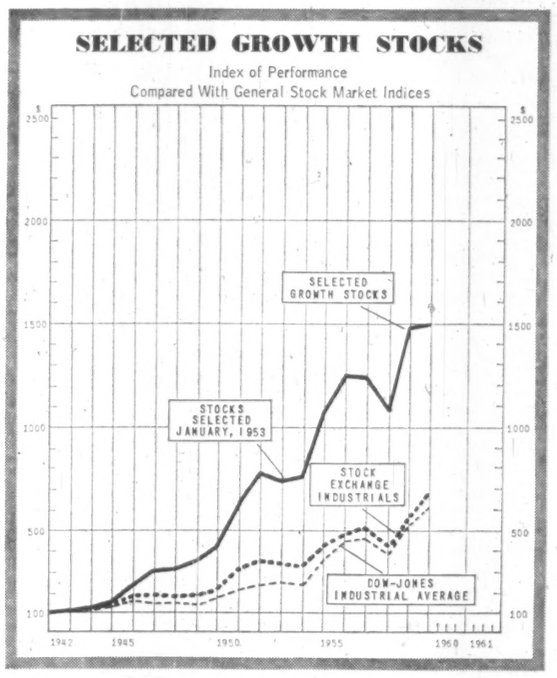
Initial demands would have cost the authority about $250,000 more annually in wages. The actual settlement is expected to be for somewhat less.

Many observers believe that the recent hefty steel settlement in the U. S. played an important part in breaking down the authority's stand (FP, Jan. 16).

Organized labor has taken the Steelworkers' victory as an indication that the wage lid is off.

The CBRT had threatened a Seaway strike if it didn't get more money for its members.

In the new mood following the steel settlement, the strike threat took on new force. The risk of a complete Seaway tie-up apparently is too strong to resist.



THE 16 GROWTH COMPANY STOCKS in Nestor's group have doubled since they were chosen; the whole section is up 70%. For analysis and outlook, pp. 32, 33.

To Spend $7 Million Here For Radar Warning System

By DAVID FRANCIS

Burroughs Corp., Detroit, will let about $20 million in subcontracts for the CADIN electronic data processing systems.

About $7 million of this amount will be spent with Canadian firms.

CADIN is the radar aircraft warning system, similar to the U. S. SAGE system, that will be built across Canada.

Power supplies for the Burroughs units of CADIN are already being built by **Bogue Electric Co.**, Ottawa.

Bogue builds the same power unit for SAGE.

Burroughs has already awarded an additional $8 million contract to its Canadian subsidiary, **Burroughs Adding Machine of Canada, Ltd.**, Toronto, for the installation, maintenance and training of personnel to handle the complicated equipment over the next five years. (FP, Oct. 17, 1959.)

The vanguard of more than 200 Canadian electronic experts who, within a year, will man these stations are already undergoing training.

The eight men now being trained will become instructors for the remainder of the 200.

A new class of 20 men will start each month until the full 200 have been trained.

In operation the CADIN system tracks and receives aircraft signals with heavy radar.

The Burroughs electronic data processing system processes radar signals into a form which can be used by the computers and transmits the information automatically to a control centre where an International Business Machines system will plot defensive action.

The system can order jet fighters or ground-based missiles into action within seconds after spotting enemy aircraft.

Why the Trading Pep Around Gold Stocks?

By FRANK KAPLAN

Gold was the centre of attention in Canadian mining this week.

Firing up sporadic bursts of interest in some gold stocks were these reports:

● **Lamaque Gold Mines**, established gold producer in the Burlamaque area of Quebec, pulled one of the richest gold drill holes yet seen in the Ontario-Quebec gold belt. This hole, which indicates the possibility of a new ore area, had one section of 4.4 ft. width which ran 2.536 oz. gold (a value of $88.76 a ton).

Details on pp. 3, 38.

Lamaque is over 80% controlled by **Teck-Hughes Gold Mines.** Rumors sparked activity in associated companies **Goldfields Mining, Geo-Scientific Prospectors** and **Consolidated Howey** as well as penny prospect **Aumaque Mines** which adjoins Lamaque.

● **Vanguard Explorations** boiled busily as it climbed from 11½c at the end of 1959 to a top of 40c, before settling back to 34c. The reason: it has optioned a long-known gold property, with rich surface samples, that was being high-graded by a lone-wolf prospector.

Details, p. 38.

Vanguard is to spend $100,000 over the next 18 months with first drills expected to probe the property early in February.

The 15-claim group is 33 mi. northeast of Yellowknife in the Northwest Territories.

Combines Branch Queries Supermarkets, Food Firms

By MICHAEL BARKWAY

OTTAWA (Staff)—A general enquiry by the Combines Branch into increasing concentration of control in the food industry seems to be indicated by the news that supermarkets and other food firms have received a 30-page questionnaire from combines investigators.

No word of the new enquiry was released here and when word leaked out from the industry there was still no official comment.

But the circumstances show that this is another general enquiry (under section 42 of the Combines Act) about "conditions and practices which are related to monopolistic situations or restraint of trade".

Such enquiries are sharply distinguished here from specific investigations in which named firms are suspected of committing an offence against the anti-combines law.

The supermarket enquiry will be the sixth general enquiry to be launched under Section 42.

● **Loss-leader selling** (specially in cigarettes and drug products).

● **Discriminatory** pricing in the grocery trade.

Still in the works are:

● **Premium** practices in automobile insurance.

● **Gasoline** companies' attempts

(Continued on page 10, col. 3)

Here's a Trend to Watch: More 'Instant' Foods Due

By RAY MAGLADRY

Here's a hot area of food retailing to watch:

It's the scramble to cash in on growing demand for convenience foods.

● **More "instant" foods are hitting the market.** And there are promises from food firms of still more to come.

● **The trend** is causing a major shift in the frozen food sections of supermarkets — underlined by rise of frozen products in ready-to-serve or easy-to-prepare form.

Leading food firms are staking major development programs on their forecasts that housewives will favor the product that reduces kitchen time, even though the price may be higher.

Half a dozen companies are now pushing instant potatoes in various forms. Other root vegetables may be in for same treatment and promotion.

The swing to time-saving foods is changing the frozen food business too.

"Convenience items, like fruit pies, cakes and complete dinners, are beginning to dominate our frozen food counters," one merchandising manager says.

It's not entirely a bonanza for Canadian producers and the companies that cater to processing of domestic production.

Imported U. S. frozen products win 50% or more of our market, and they dominate the newer convenience items.

IRON EXPORTS

We'll Need New Ships To Compete with U. S.

By RALPH YOUNG

Canadian shipping and shipbuilding interests are co-operating in preparing a submission to the federal government, seeking a solution to a major problem facing them over the next few years.

The problem:

Getting a share in the movement of the large additional tonnages of iron ore that will be going from Canada to the U. S.

In an atmosphere of free competition, Canadian ore has been moving in Canadian ships. But, when the new shipments begin, in much greater volume, there won't be enough Canadian bottoms to take care of it.

There is a small surplus of U. S. bulk carriers at the moment; some others probably will be diverted from hauling Mesabi ore to carrying Canadian ore.

Canadian shipping firms aren't objecting to that development.

But currently available ships won't be adequate to move the greatly increased tonnages of Canadian ore when the mines really get into production — starting next year and accelerating to peak probably in 1965.

It's estimated that 40 to 50 new bulk carriers of 20,000 to 24,000 deadweight tons, built to maximum dimensions allowed by the St. Lawrence Seaway and Welland Canal, will be needed.

Canadian shipping firms would like to be assured that there will be business for at least 20 new Canadian vessels.

Shipbuilding contracts should be let early this year if new ships are to be ready when the ore movement starts.

But Canadians hesitate to commit large sums for new ships while there are real uncertainties that they'll share in the tonnages.

The questions in their minds:

● **Will U. S. companies** — including steel firms owning "captive fleets" of ships — be granted subsidies that will make it impossible for the Canadian vessels to compete?

● **Will foreign interests** — particularly British firms with ships well suited to the ore trade — move in and take over, with the advantages of lower costs and off-season operation in other areas?

● **Will lower-cost foreign ships** take a lot of the tonnage down

(Continued on page 10, col. 2)

Bomarc Misses

WASHINGTON — The Bomarc B air defence missile has had five test shots. It has failed five times.

In every shot the missile's ram-jet engine failed because of improper valve functioning. (More about Bomarc, p. 25).

Despite the failures, more tests are planned for late January. U. S. military scientists feel they may be able to overcome the difficulties.

The Bomarc B is the missile Canada adopted for two squadrons in Ontario and Quebec following cancellation of the A. V. Roe CF-105 Arrow a year ago.

OVERSEAS MARKETS

Saskatchewan Helium Play Starts to Pop

Reports say the discovery well concentration runs better than 2%, and gas men are already talking sales . . .

By W. L. DACK

Canada's helium play is reaching important proportions, as more big oil firms grab potential acreage in southwestern Saskatchewan.

Five large oil companies and a syndicate of seven smaller firms have taken out special helium permits with the Saskatchewan government.

These cover over one million acres in an 114-mi. by 132-mi. stretch southwest of Swift Current.

First hint of the presence of the rare gas came when **British American Oil Co.** found significant proportions in a wildcat well 6 mi. north of Swift Current last summer.

Since then, Saskatchewan has had to draw up a special exploration and development permit for helium only.

Texaco Exploration, Sun Oil, Mobil Oil, Richfield Oil, B-A Oil and the syndicate have secured these permits.

The syndicate consists of **Dominion Explorers Ltd.** (the management company), **Spooner Mines & Oils, Sarcee Petroleums, Stanwell Oil & Gas, Anglo Western Oil & Gas** and **Trans-Continental Pipelines.**

Helium is an inert gas—that is, it doesn't react with anything else and therefore does not support combustion.

Because of this unusual quality, it is in increasing demand for many defence applications, covering production of jet aircraft, missiles, where high temperature alloys are used.

Practically all the world's supply today comes from a 250-sq.-mi. area near Amarillo, Texas, where it is recovered from natural gas.

So far, it is a virtual U. S. government monopoly. Wash-

(Continued on page 8, col. 3)

Seek to Convert Kids to Rhubarb

A bigger market for the lowly rhubarb?

Delegates to mid-week convention of International Hothouse Rhubarb Growers laid plans to win Canadian shoppers back to a fruit that was once a leading off-season delicacy.

They will do it through public education program, shooting especially for converts among young people.

Winter-grown rhubarb once shared with apples the position of sole fresh fruit available to Canadians in winter months.

But growth of canned and frozen foods and imported fresh fruit from U. S. has changed the picture.

Ontario ranks as third largest growing area for winter rhubarb in North America, producing 1.2 million lb. annually.

More public acceptance and a way to lengthen shelf life of the perishable product could boost this output substantially, growers feel.

Signs & Portents

FROZEN FLOWERS from the supermarket: It's being tested in both U. S. and U. K. Snapdragons, heather, roses would be cut in season, coated, and quick frozen. Research indicates they would last five days after leaving store's freezer counter.

* * *

THIS MAY HELP pep Canadian exports. Benjamin Rotman of Boston has formed a company exclusively to promote sale of Canadian goods in New England. The unique Canadian Trading Co., Boston, hopes particularly to boost sale of our food and wood products. We don't publicize our products enough, says Rotman. Example: Oka cheese, little known in the U. S.

* * *

ON THE HORIZON: Movement of fruit juice, milk, turpentine and even solids through petroleum pipelines, according to the American Petroleum Institute. Also a possibility: Synthetic protein from petroleum to help feed underdeveloped areas. Scientists have already made fats, sugars and other carbohydrates from petroleum.

How Much Boom?

The Outlook

There's speculation that the premium on Canada's dollar may ease. Here are some signposts to watch . . .

By DALTON ROBERTSON

DESPITE Canada's whopping 1959 deficit on current account—we probably bought abroad $1.4 billion more goods and services than we sold—the premium on the Canadian dollar rose to near record levels last fall and stayed there. **Early last year, it took about 103c U. S. to buy $1 Canadian; now it takes almost 105c U. S.**

The rising premium reflects the strong inflow of U. S. investment dollars into this country and the conversion into Canadian funds of the proceeds of Canadian borrowing floated in the U. S. money market, an inflow large enough to affect the current account deficit.

Exporters, importers, government officials and some parts of the financial community are now pondering what will happen in 1960. **There's increasing speculation that some decline in the premium may be in the offing**—but it's just speculation. No one will hazard a firm forecast.

Whatever the end result, these are the signposts to watch over the next few months:

▸ **How close U. S. capital spending plans come to reaching today's currently optimistic targets.** The bigger the business spending boom south of the border, the greater the overflow into expansion or modernization of U. S. branch plants here—and the higher the premium on the Canadian dollar.

Right now, however, U. S. business spending appears to be

(Continued on page 8, col. 2)

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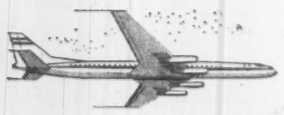

BY AIR LAND WATER

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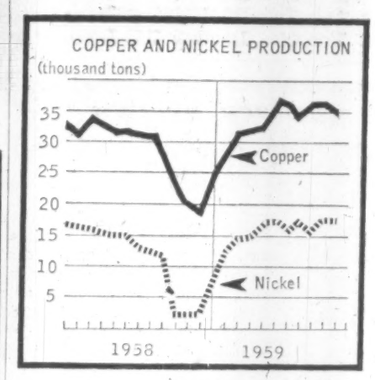
Trend of Business

Copper, nickel output higher. Production of primary copper in first 11 mos. 1959 rose 11.8% over year-earlier period at 364,946 tons vs. 326,289 tons. Nickel production was 22.9% higher at 167,603 tons (136,405 tons). Dominion Bureau of Statistics estimates value of 1959 nickel output at $257 million ($194 million in 1958); copper output at $233 million ($174 million).



Railway carloadings up 2.2% in 1959 over 1958 at 3,854,918 cars vs. 3,771,008. Piggy-back loadings were almost doubled at 133,929 cars (77,109). Principal commodities loaded in greater volume included: iron ore, aluminum ore and concentrates, crude gypsum, "other" mine products and miscellaneous carload commodities. Loaded in smaller volume: wheat, coal, nonferrous ores and concentrates and gasoline.

Big store sales higher. Department stores boosted November sales 3.7% above a year earlier to $152.5 million from $147.1 million, lifting first 11 mos. 1959 total 6.1% ahead of previous year at $1,224 million ($1,154 million). Year-to-year gains were recorded in all regions both in November and in the 11 mos. except for Saskatchewan and Alberta in the month.

These departments had the best gains in November: China and glassware, 16.7%; toiletries, cosmetics and drugs, 12.6%; women's and misses' dresses, 9.5%; stationery, book and magazines, 9.1%; radio and music, 9%; hardware and housewares, 8%. Declines: aprons, housedresses and uniforms, 7%; women's and misses' coats and suits, 6.8%; food and kindred products, 3.3%.

Turnover in chain stores was up slightly in November from year earlier at $265.5 million ($265.1 million). With larger gains in all earlier months as compared with 1958, January-November sales advanced 6.2% to $2,846 million from $2,679 million. Grocery and combination store chains increased sales 1.3% in November, 6.9% in the 11-mo. period.

Overseas wheat sales up 10.3% in Aug. 1-Dec. 30 period at 114 million bu. vs. 103 million bu. in like 1958 period. Visible supplies in all North American positions at Dec. 30 amounted to 383 million bu., 0.9% ahead of year-earlier total of 379 million bu.

Farmers buy more machines. Wholesale value of farm implement and equipment sales in 1959 was $258 million, up 25.2% from previous year's $206 million. Sales of repair parts, included in total, rose 14.9% to $39 million ($34 million).

Major Weekly Indicators

	Latest or Week	Date Ended	Previous Week	Change from Month ago %	Change from Year ago %
Passenger car production	(Jan. 16)	8,806	8,380	+ 24.4	+ 26.4
Truck production	(Jan. 16)	1,755	1,647	+ 23.9	+ 60.6
Bus. fail. 4-week moving av. (no.)	(Jan. 7)	24.3	29.0	— 39.2	+ 21.5
Steel ingot production (tons)	(Jan. 9)	124,5..	122,658	+ 2.5	+ 23.7
Steel production (% capacity)	(Jan. 9)	102.5	101.0	+ 2.5	+ 15.8
T.S.E. industrial index	(Jan. 19)	519.60	520.46	— 2.0	— 1.3
Yield 114 stocks	(Jan. 18)	4.51%	4.47%	+ 1.6	+ 11.1
Chartered banks					
Personal savings ($ millions)	(Jan. 6)	6,877	6,844	+ 0.4	+ 0.7
Loans outstanding ($ millions)	(Jan. 6)	6,185	6,172	— 1.1	+ 12.8
NHA mtge hldgs ($ millions)	(Jan. 6)	965	963	+ 0.9	+ 22.0
Bank clearings:					
Montreal ($ millions)	(Jan. 15)	866	1,214	— 29.3	— 7.3
Toronto ($ millions)	(Jan. 15)	1,216	1,691	— 29.0	+ 7.5
Cdn. dollar (U.S. cents av.)	(Jan. 19)	104.966	104.835	— 0.2	+ 1.4
Carloading totals	(Dec. 31)	*79,312	64,507	— 10.6	— 2.5
Eastern Canada	(Dec. 31)	*53,225	43,047	— 5.7	+ 4.5
Western Canada	(Dec. 31)	*26,087	21,460	— 19.2	— 14.2
Iron and steel mfg.	(Dec. 31)	* 1,675	1,393	+ 7.8	+ 27.9
Ores, concentrates	(Dec. 31)	* 4,555	3,393	— 19.6	+ 31.6
Base metals	(Dec. 31)	* 841	724	+ 16.3	+ 75.2
Lumber, timber plywood	(Dec. 31)	* 3,941	3,760	— 9.1	+ 18.3
Cement	(Dec. 31)	* 180	197	— 46.7	— 20.7
Bank of Canada holdings of					
Securities ($ millions)	(Jan. 13)	2,701	2,718	+ 0.7	+ 2.1
Short-term govt. ($ millions)	(Jan. 13)	806	823	— 1.2	+ 258.2
Long-term govt. ($ millions)	(Jan. 13)	1,818	1,818	+ 1.1	— 24.0
Other securities ($ millions)	(Jan. 13)	19	19	+ 5.5	— 50.0
Department store sales % change from year earlier	(Jan. 2)	—0.9	+ 24.3	— 2.9	— 0.1

* Ten-day end-of-month period.

Facts by the Month

	Latest Month	One Month Previous	—Change From— Two Months Ago %	Year Ago %
WHAT WE PRODUCE—				
In all industries (Index)	Oct. 175.1	171.2	+ 8.2	+ 11.8
In factories (Index)	Oct. 157.6	153.6	+ 7.9	+ 10.0
Total nondurable goods (Index)	Oct. 157.9	157.6	+ 3.1	+ 5.0
Food & bev.	Oct. 180.4	170.3	— 4.0	— 0.2
Textiles	Oct. 128.8	127.7	+ 2.9	+ 5.7
Clothing	Oct. 120.2	118.0	+ 5.1	+ 3.6
Chemical products	Oct. 208.7	197.4	+ 8.9	+ 7.4
Total durable goods (Index)	Oct. 157.2	148.8	+ 14.2	+ 16.5
Iron & steel products	Oct. 159.8	155.2	+ 9.9	+ 32.7
Primary iron & steel	Oct. 194.7	179.6	+ 21.9	+ 104.5
From mines (Index)	Oct. 272.6	277.9	+ 5.7	+ 19.3
Metals	Oct. 221.3	226.1	+ 2.2	+ 28.4
Nonferrous smelting, refining	Oct. 152.7	150.8	+ 10.5	+ 39.5
Gold	Oct. 111.4	105.7	+ 9.9	— 0.9
—From farms				
•Cattle delivered (000)	Oct. 150	196	+ 5.0	— 6.2
•Hogs graded (000)	Oct. 591	812	+ 11.3	+ 15.2
Grain mill products (Index)	Oct. 140.0	130.9	+ 6.4	+ 2.6
—From sea				
East Coast catch ($000)	Nov. 1,768	3,318	— 66.6	— 25.4
W. Coast catch ($000)	Nov. 2,511	3,602	— 44.3	+ 5.4
—From forests				
Newsprint (000 tons)	Nov. 563	593	+ 5.6	+ 8.7
Pulp (000 tons)	Nov. 930	987	+ 5.4	+ 8.1
—In powerhouses				
Electricity (million kwh.)	Nov. 9,327	9,026	+ 13.6	+ 10.2
WHAT WE SELL—				
Retail sales ($ millions)	Oct. 1,429	1,301	+ 10.7	+ 7.8
•Dept. store sales ($ millions)	Nov. 152.5	134.6	+ 20.5	+ 3.7
Wholesale sales ($ millions)	Oct. 7'le	704	+ 15.2	+ 6.0
Mfrs outstg. orders ($ millions)	Oct. 2,225	2,232	— 1.0	+ 5.0
Pass. car sales (units)	Oct. 31,834	25,337	+ 4.5	+ 14.1
WHAT'S ON HAND—				
Mfrs. inventories ($ millions)	Oct 4,449	4,464	+ 0.2	+ 1.8
•Dept. store stock sales ratio	Nov. 2.2	2.5	—12.0	+ 4.8
SPENDING, SAVING POWER—				
Labor income ($ millions)	Oct. 1,550	1,554	+ 2.0	+ 9.3
Dividend payts. (Index) (annual rate)	Dec. 315.5	312.2	+ 4.3	+ 5.3
JOBS—				
Persons with jobs (000)	Nov 5,951	6,053	— 2.1	+ 3.1
Jobless seeking work (000)	Nov 296	237	+ 38.9	— 18.0
Do. (% of labor force)	Nov 4.7	3.8	+ 38.2	— 20.4
CONSTRUCTION—				
Contract awards ($ millions)	Dec. 169	312	— 41.9	— 37.6
FOREIGN TRADE—				
Exports ($ millions)	Nov. 499	472	+ 8.9	+ 22.5
Imports ($ millions)	Nov. 490	496	+ 4.9	+ 7.5
MONEY—				
Money supply ($ millions)*	Oct. 13,164	13,074	+ 1.2	— 0.3
Cheques cashed ($ millions)	Oct 22,496	20,424	+ 13.9	+ 0.2
Life insurance sales ($ millions)	Nov. 574	461	+ 24.0	+ 11.3
Notice deposits ($ millions)	Oct. 7,806	7,806	— 0.2	+ 2.3
Current public loans ($ millions)	Oct. 6,211	6,264	— 1.6	+ 20.7

*Total deposits less Govt. of Canada deposits less float, plus notes in circulation outside the banking system.

PRICES—				
Consumer prices (Index)	Dec. 127.9	128.3	— 0.1	+ 1.3
Wholesale prices (Index)	Dec. 229.8	230.3	— 0.1	+ 0.2

STRATEGIC MATERIALS—Production and Supply—

	Latest Month	Month yr. ago	Yr. to date	% chge. yr. to date
•Steel ingots and castings (000 tons)	Nov. 543	368	5,371.5	+ 37.1
•Nickel (000 tons)	Nov. 16.9	2.9	167.6	+ 22.9
•Primary copper (000 tons)	Nov. 35.3	20.1	364.9	+ 11.8
•Lumber exports (millions fbm.)	Oct. 345	421	3,536.1	+ 9.3
•Lumber (millions fbm.)	Oct. 611	630	6,349.0	— 0.3

•New item this week.
Index based: production 1949=100; consumer price index 1949=100; wholesale price index 1935-39=100.

Date of issue for your file, The Financial Post, Jan. 23, 1960.

Look For It Here

January 23, 1960

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Placer Develops Australian Coal

Placer Development, through its wholly-owned subsidiary **Canadian Exploration** has purchased a group of Australian coal companies.

Through the purchase of all the shares of the **S & M Fox** group of companies, Canex has acquired operating mines, trucking and engineering facilities in New South Wales.

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Explosives Price Boosted By C-I-L

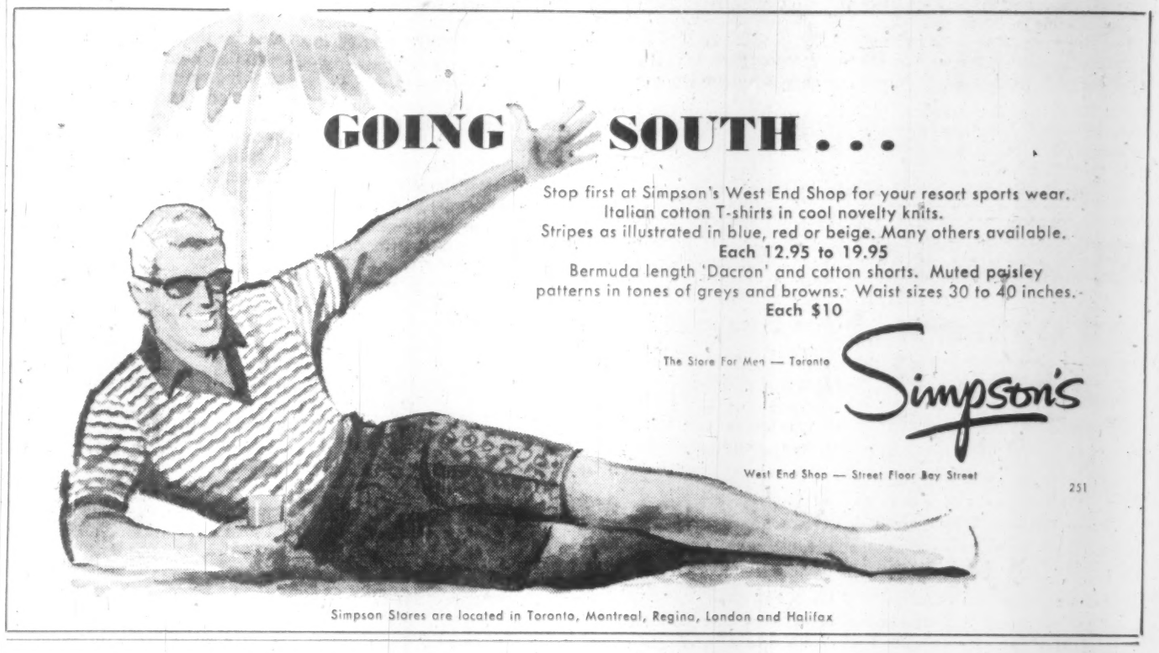
Canadian Industries Ltd. has announced an increase in selling prices of all high explosives and some blasting accessories.

Prices of blasting agents are unchanged.

The increase in explosives averages 4.7%.

Increase was made necessary by increased unit costs of manufacturing and distributing high explosives, C-I-L says.

Revised average selling price is now 64.8% above pre-war, 1939, average selling price.



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5904

Air Suicide Raises Insurance Problems

By H. R. SUYDAM

Canadian insurance firms are watching the outcome of investigations into the alleged suicide-bomb explosion aboard a **National Airlines** DC-6B which earlier this month took the lives of 34 persons in North Carolina.

If, as evidence to date suggests, the plane was deliberately blown apart in the air, it will mark the ninth known occasion during the past 10 years when bombs have been planted in commercial airliners, with the resulting loss of 133 lives.

In most cases, these plots were inspired by hopes of gain through insurance claims.

The most notorious case in Canadian annals occurred in September, 1949, when a time bomb exploded aboard a **Canadian Pacific** airliner near Quebec, carrying 23 persons to their deaths, including the wife of the planter of the bomb, J. Albert Guay.

Guay and two accomplices who helped him make the bomb were later hanged.

While it may be many weeks before the facts underlying this latest tragedy are pieced together, the insurance questions likely to arise are already apparent.

Assuming a suicide motive, payment to the beneficiaries of the heavily insured deceased may be withheld if it can be proved that death had occurred by the insured's own hand and within two years of issuance of the life insurance policy.

Clauses providing for no payment in case of suicide within the first two years of a policy's life are normal in both Canada and the U. S., insurance men say, although this period is discretionary and may, in Canada at least, be shorter or longer.

The onus on an insurance company in proving suicide is a double one.

The facts must not only be consistent with suicide. They must also be inconsistent with accidental death.

This defence to a claim in cases of suicide taking place after the stated period, cannot be raised even where it is proven that the deceased took his own life specifically to anticipate payment of insurance monies to his beneficiaries.

However, in cases of proven suicide for the purpose of insurance gain, some lawyers have advised FP that insurance companies might possibly invoke the public policy principle of common law under which it would be held wrong to indemnify a man against the consequences of his own wrongful act.

Insurance company counsel, while admitting the application of this principle in theory, were not aware of any cases in Canada where it had been applied.

That this has not been done, they say, is largely a matter of policy, since in regard to insurance contracts containing a suicide clause, there is an implication that payment will be made after the set period regardless of the cause of death.

Cause of the airliner crash, whether accidental or wilful, will make no difference in settlement of the insurance claims of the other victims, insurance officials say.

But, would proof of a deliberate bombing of the plane by a successful suicide enable the insurance companies to claim against the estate of the wrongdoer?

Both lawyers and insurance men say no.

Life insurance and personal accident policies carry with them no right of subrogation in Canada, England and in most jurisdictions in the U. S.

These policies are not contracts of indemnity. They re personal contracts between the insured and the issuing company.

This means that the insurance companies cannot, for purposes of legal action, put themselves in the shoes of the victim of the wrongful act.

By the same token, insurance firms cannot sue the airline company for recovery of payments made to the beneficiaries of persons killed in a crash resulting from the airline's negligence.

However, personal representatives or dependents of the other deceased passengers would have a right of action against the estate of a suicide-bomber, if his act were proven to have caused the crash, or against the airline company, if their negligence were to blame.

If the contract implicit in the flight ticket was one for international carriage (which in most countries would bring it under the Warsaw Convention of 1929), the onus automatically shifts to the airline company to prove no negligence.

Damages payable under the convention (now written into Canadian and U. S. law) are limited to a maximum of $8,000 for loss of life or injury unless negligence can be proved.

Canadian insurance companies say that, at the moment, they do not foresee the need for any restrictions on the amount of life insurance carried by policyholders using air transportation.

Some companies ask policy applicants who fly a great deal to fill out an aviation questionnaire, and on the basis of this may limit the principal amount for which they will issue a contract. But cases of this are rare, insurance men say.

Need Fast, Effective Check Of Airline Luggage, Freight

For the airline industry, life takes on a nightmarish quality at the slightest suggestion of a bomb.

And you can be sure that there will be more high level thinking in the industry as a result of recent episodes in the U. S.

The facts are these:

- **The death rate from bomb crashes is infinitesimal** compared to almost any other form of accidental or violent death.
- **Occasional hoaxes** — when a prankster "warns" an airline that a bomb is scheduled to go off — cause costly, annoying and time-consuming inspections.
- **Incidents — both real ones and hoaxes**—cause harmful and unnecessary publicity for the industry.

What's needed is an effective but harmless and fast method of checking luggage, mail bags and freight.

X-rays have been tried, but are not satisfactory since many innocent objects (such as men's electric shavers) look highly suspicious and other items (such as photographic films) are ruined when subjected to X-ray.

And there are bombs that could beat an X-ray inspection.

But whether a new "quick detection" method is devised or whether baggage has to be opened, carriers will resort to routine inspection if necessary to protect lives and valuable equipment.

And warped minds will find this method of mass murder less attractive as police, airlines and insurance companies gang up on them with better detection methods.

Pranksters will find that the stiff jail sentence handed out to one Vancouver joker not long ago, takes a good deal of the fun out of false alarms.

Our Food Men May Explore U.K. Market

The Canadian food industry may explore the now-more-promising U. K. market next fall.

If enough interest is shown in Canada, the federal government will rent space in the U. K. Food Fair scheduled for Sept. 1-17 this year.

Liberalization by U. K. on imports from dollar areas has made this market much more interesting to Canadian food and other firms (FP, Dec. 19, 1959).

Participation in the fair hinges on response of companies to an offer by Department of Trade & Commerce to rent space and arrange other details.

D. H. Burns, of the department's Agriculture & Fisheries Branch, has set Feb. 26 as deadline for hearing from interested firms.

Government officials point out that.

- **U. K. is world's largest importer** of food.
- **Generally rising living standards in Europe** are creating a market for convenience and luxury foods.

The food fair, to be held in the Grand Hall, Olympia, in London, expects a large attendance because of a heavy advertising program.

Participation fee is $50 plus cost of extras not included in the government's service to exhibitors. This service includes space rental, designing exhibitor booths, provision of shelving, counters, display signs.

Plax Canada Expands Plant

Manufacturing capacity of the Georgetown, Ont., plant of **Plax Canada Ltd.** is being increased by 80%.

This follows a 66% expansion in 1959. The program will involve expenditures of approximately $750,000.

The expansion is planned to serve the anticipated booming Canadian market for high density polyethylene containers.

Last year **Plax Corp.** in the U.S. sold more plastic bottles than all other companies combined.

COAL

Dosco Checks Sales Before Making Cuts

MONTREAL (Staff)—Before deciding on the extent of production cuts in its Cape Breton collieries, **Dominion Coal Co.** will reassess its sales prospects.

A "fairly big order" from a new customer in Ontario is being negotiated. Several other orders are being pursued in Central Canada.

If these sales pitches lead to firm commitments for Nova Scotia coal, cutbacks will be no more drastic than last year.

If they fail, the slack time will be more severe.

Dosco closed its collieries for an average of 40 days each in 1959. The staggered shutdowns started in February and continued until June.

Some 6,500 miners will share in 1960's idle time in six collieries operated by the company in Cape Breton.

Actually Dosco's pits are geared for production of some six million tons.

There is a market for roughly 4.5 million and no sign of an upturn unless potential demand for coal for thermal power generation is realized.

What Dosco would like to do is close three of its unprofitable collieries and concentrate on hoisting coal from the most economical pits.

However any suggestion of closure meets strong opposition in Nova Scotia.

"It is argued that we should keep all mines open and operate them on a part-time basis," President A. L. Fairley Jr. said. "But this cannot be done without the company sustaining losses that would quickly bankrupt it and mean, in turn, loss of jobs to a majority of our employees."

This is a point that likely will be aired before the Rand royal commission on coal (FP, Jan. 16).

The commission will sit in Regina Feb. 2 and 3, Montreal Feb. 9 and 10 and in Toronto Feb. 15 and 16.

It will then meet in the Maritimes and return to the West for hearings in Alberta and British Columbia.

Beset by dwindling demand for coal, Cape Breton can find some consolation in increased steel production. Dosco's big plant at Sydney is operating at 85% of capacity.

There are 4,275 men on the steel payroll, highest in more than two years.

Meanwhile the outlook for Dosco's **Halifax Shipyards Ltd.** has improved.

Backlog of orders, including a new ferry for Prince Edward Island service, is understood to be around $32 million.

A full summer work schedule in the shipyards seems assured.

The $3 million P.E.I. ferry to ply between Borden and Cape Tormentine, N.B., will accommodate about 70 automobiles and 300 passengers.

It will be of all-welded steel construction and have enough power for ice breaking.

It will be completed by Aug. 31, 1961.

Keevil Tells Of Gold Find

Here's how the Lamaque hole is shaping up, from the man who planned it . . .

By FRANK KAPLAN

The best place to look for new mines is where there are producing mines.

That bit of mining industry philosophy (it resulted in the Quemont discovery within hearing distance of the Noranda whistle) became an important part of the approach followed by Dr. N. B. (Norm) Keevil when he pulled together a group of established mining companies (FP, Jan. 17, 1959).

"We're going to apply scientific methods," said the professor who had outmanoeuvred some of Bay Street's top financiers in building up a string of copper and gold companies.

One of the mines in the group is **Lamaque Gold Mines** which is controlled (about 80%) by **Teck - Hughes Gold Mines.** Keevil is chairman of both companies. Lamaque is an established gold producer in the Bourlamaque or Malartic camp of Quebec, near Noranda and about 300 mi. northwest of Montreal.

This week an excited Keevil waited anxiously for the key follow-up results of an exploration and drilling program that has resulted in one of the richest gold holes drilled in the gold camps of Ontario and Quebec. (Mines in the high-cost Yellowknife area have come up with richer gold cores.)

This hole, drilled 1 mi. east of the present Lamaque mine site where some $88 million of gold has been extracted, had these results:

Gold per ton ozs.	Core length ft.	From ft.	To ft.	Value per ton $
0.387	17	128.5	145.5	13.55
0.240	2.2	157.0	159.2	8.40
0.120	1.0	221.0	222.0	4.20
0.350	97.6	284.4	382.0	12.25
0.100	8.0	382.0	390.0	3.50

The big section of 97.6 ft. of $12.25 gold included 2.536 oz. over a 4.4 ft. width which would be worth $88.76 a ton and 0.543 oz. over 54.3 ft. worth $19 a ton.

In many gold mine workings, veins as narrow as 1 in. can be worked profitably.

"The first hole gave us the vital clues of higher gold values over substantial length," reports Keevil.

"Right now our people are drilling in an effort to find the extent of what we have. We must determine true widths, if values continue and what path any mineralization takes.

"It's only the first hole, but it's a rewarding indication of the results of our carefully-planned exploration program of the well-established Lamaque property," Keevil told FP.

The 49-year-old discoverer of the rich **Temagami Mines** copper property, and one of the nation's top geophysicists, applied one of the older scientific techniques in taking a fresh look at Lamaque.

A ground magnetometer survey (instead of the popular airborne and ground EM surveys) helped pinpoint the area to be drilled about one mile east of the existing mine.

From knowledge gained in the study of Lamaque ground, this rich hole could lead to a completely new ore zone of greater richness and extent than the present orebody.

The main Lamaque mine is a plug rather than a vein system, and it is the dream of such mines to find additional plugs.

"We don't know the answers yet," emphasizes Keevil. "But we are going to find out by detailed drilling and other exploration work. This will take time.

"We must wait for more confirmation in what appears to be a spectacular but complicated picture."

He explained that the success in using the ground magnetometer survey in finding what appears to be a gold plug opens up many possibilities, because similar studies are being carried out by his group elsewhere.

Lamaque's Bouncing

Tightly held **Lamaque** shares (**Teck - Hughes** holds 2,432,600 of the three million outstanding) were a highlight on the Toronto Stock Exchange as they bounced to $4.45 from around the $3 level recently ($4 at midweek).

Assorted rumors which first concentrated on Teck - Hughes and then linked Teck and Lamaque spread into other companies in which Keevil and his associates are interested and into other properties in the Bourlamaque area.

Teck was as high as $2.63.

Lamaque's immediate neighbors include the **Dome Mines**-controlled **Sigma Mines** (a producer) to the north and **Aumaque Mines** to the south.

Aumaque, a dormant penny prospect, traded heavily as it climbed from 7c recently to 19c.

Other companies in the Keevil group hold indirect interests in Lamaque through Teck-Hughes.

Goldfields Mining has some 750,000 Teck shares; **Geo-Scientific Prospectors** has about 250,000 and closely-held **Consolidated Howey** holds 260,000 Teck.

Here's how Keevil group shares trade.

	Latest	End '59
Lamaque	$4.00	$3.10
Teck-Hughes	2.47	1.67
Cons. Howey	2.95	3.00
Goldfields	0.33½	0.24
Geo-Scientific	0.90	1.00
Temagami	2.10	2.05
Pickle Crow	0.88	0.85

Can. Tungsten Stock Offered

First public offering of common shares of **Canada Tungsten Mining Corp.** was announced this week. (FP, Nov. 28).

A total of 416,520 shares are being offered by **Burns Bros. & Denton** and **Walwyn, Stodgell & Co.** at $1.50 a share.

Proceeds of the offering, together with underwriting of 91,740 shares each by **Dome Mines** and **Ventures** will total about $742,000. They will be used to continue development and exploration of the property in the NWT.

Balance sheet as of Nov. 30, 1959, showed cash of $41,040 against current liabilities of $9,260.

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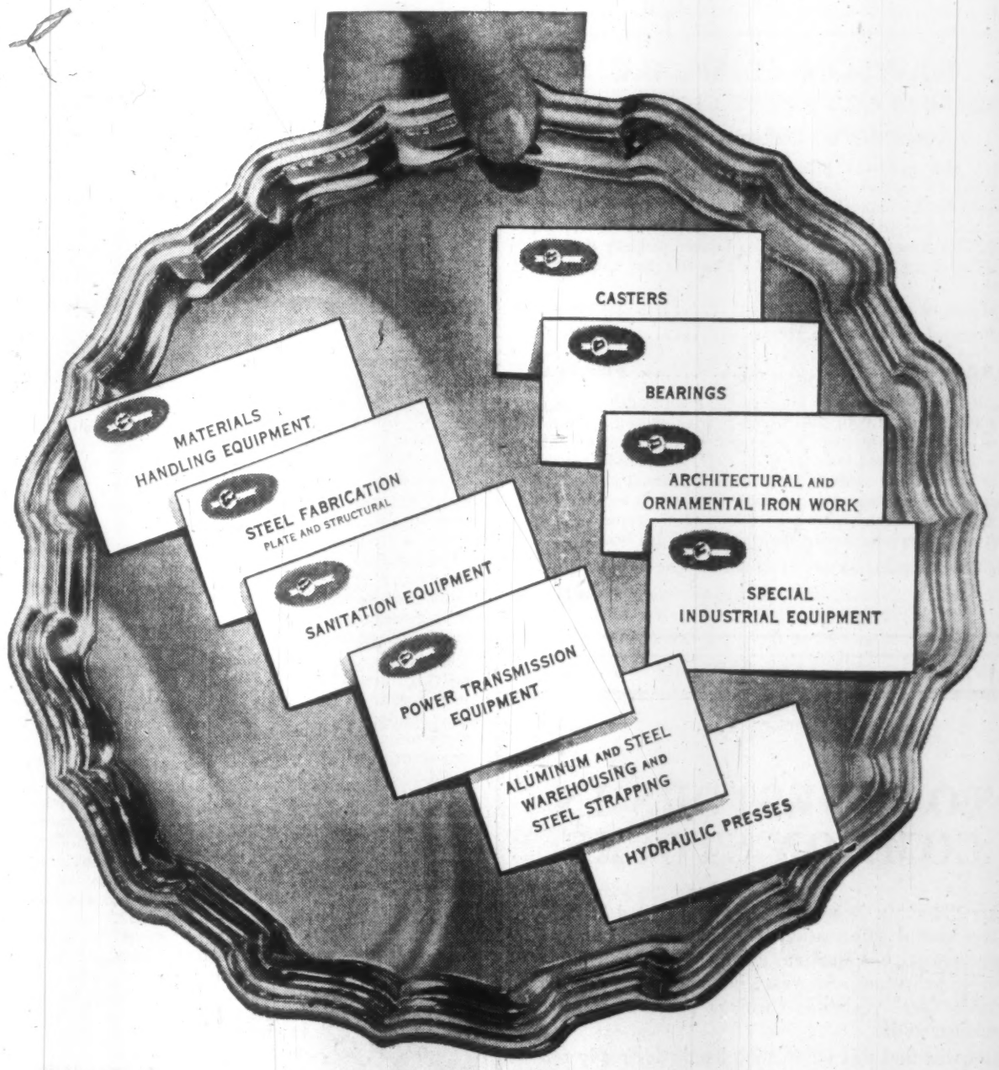

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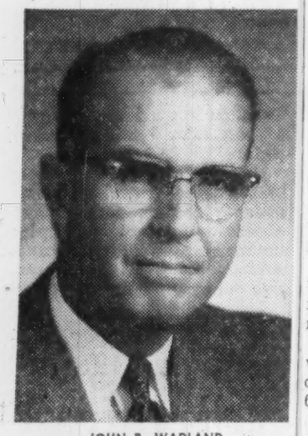

JOHN B. WADLAND

The Board of Directors of Canadian Printing & Lithographing Co., Ltd., Montreal, are pleased to announce the election of Mr. John B. Wadland to the office of Vice President. Mr. Wadland is also a director of Hazell Sun (Canada) Limited, and Canadian Representative of the Hazell-Sun group of printers, London, England.

Coal Firms To Open Talks With Japan

From Our Own Correspondent

LETHBRIDGE — Officers of three coal mining firms in Crowsnest Pass area will begin marketing talks with Japanese steel mills next month.

The Canadian operators hope to negotiate a $9 million order for sale of coal to Japan over next three years (FP, Jan. 16).

Meanwhile, producers are working toward a March 31 deadline to complete a current 60,000 ton order from Japan.

The Canadian team will consist of T. G. Ewart, president of **Crow's Nest Pass Coal Co.**, J. A. Brussett, vice-president of **West Canadian Colleries**, and F. J. Harquail, president of **Coleman Colleries**.

It is practice of Japanese to negotiate for renewal orders on a yearly basis the year to start April 1.

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Notice of Debenture Sale

Sealed bids endorsed Bids to purchase debentures issued pursuant to By-Law 405, City of Dawson Creek will be received by the undersigned, at the City Hall, Dawson Creek, B.C., up to twelve (12) noon M.S.T. Wednesday, February 24, 1960. The debentures are issued to finance partially the construction of a City Hall Building, a Fire Hall and related Site Works.

Total cost of project	**$500,000.00**
Provided from Reserve Funds	**100,000.00**
Debentures issued	**$400,000.00**

The issue consists of four hundred (400) serial debentures of One Thousand ($1,000) dollars each bearing interest at the rate of Six and three-quarter (6¾%) per cent per annum. The debentures are dated December 31, 1959, and shall be payable as to principal by twenty (20) consecutive annual installments commencing on December 31, 1960, and interest thereon shall be paid semi-annually on June 30th and December 31st in each and every year during the currency of this issue.

Additional information will be submitted upon request.

John J. Grohn
Treasurer

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Canadian Food's Past Record

Year	Sales $ million	Profit $000	Profit as % of sales	Earnings per share — Preferred $	Class A $	Common $	Price Range — Pref. $	Class A $	Common $
1959*	28.5	98.3	0.3	3.93	d0.14	d0.57	62 -44¼	9½-7½	.5 -2½
1957	19.4	181.9	1.0	7.28	0.69	d0.15	50 -35	8¼-7	3½ -2½
1956	18.6	236.8	1.3	9.47	1.24	0.12	65 -46	8¾-8	4¼ -3
1955	16.9	194.7	1.2	7.79	0.82	d0.09	68 -33½	8½-4¼	4.10-1¾
1954	17.0	d119.4	..	d4.78	d2.32	d1.66	64 -30	7 -3½	3¾ -1.15
1953	15.4	31.4	0.2	1.26	d0.81	d0.91	66 -45	10 -5	4 -2½
1952	15.7	13.9	0.1	0.56	d0.98	d0.99	58 -49⅝	6½-4½	4 -2½
1951	14.7	10.0	0.1	0.40	d1.03	d1.01	70 -53	9 -5½	4.60-3
1950	15.7	d90.1	..	d3.61	d2.03	d1.51	75½-55⅛	14 -6	6 -3
1949	16.3	344.8	2.1	13.79	2.32	0.66	77 -60	13½-8¼	9 -4¼

*16 months ended March 3, 1959.
Year ended March 3, 1959, showed profit of $31,993.
d—Deficit.

INVESTMENTS

Canadian Food Products: Reforming a Problem Child

By HENK HOPPENER

THE RECENT SALE of three Toronto restaurants by **Canadian Food Products Ltd.** (FP, Jan. 9) marks the beginning of a renewed drive to create a profitable enterprise out of this growing but, to date, disappointing food complex.

The revamping process had been going on for some time under former president Ernest J. Spence. It is gathering new steam under Lewis W. Lawson who succeeded Spence late in 1959.

LAWSON

A major moving spirit in the whole reorganization has been J. William Horsey, who has spent a large part of the past year concentrating on Canadian Food's problems.

Horsey, for many years head man at **Dominion Stores** and a key figure in the building up of **Salada-Shirriff-Horsey**, was called in a year ago by the Canadian Food board to help revive the flagging company. He agreed to take it on for a year — a year just now about to end.

His main task was to get the company turned around and to put the right people in the right places to keep it going in the right direction.

DRAPER

It is doubtful if there will be a profit for the current year which ends in a few weeks. But a new management group has been installed, and directors are optimistic about the chances of achieving much better results in the future.

Canadian Food, despite many reshuffles, disposals and acquisitions, through the years had acquired a nation-wide business with bakeries, restaurants, coffee shops and industrial catering services, selling more and more, with less and less profit.

Although its sales were nearing the $30 million-a-year mark, its profits in the year ended March 3, 1959 were only $32,000—less than one tenth of 1% per sales dollar.

A 5% profit on sales after taxes is the "early target" set for Canadian Food by its new president Lawson.

HERGERT

This is ambitious in the light of past performance. But it is not out of line with comparable operations in the U. S., it is claimed.

To achieve this goal "as soon as possible", Lawson had a special report prepared by outside consultants, immediately upon his appointment to the top job last November.

On his desk, as a Christmas present, arrived an elaborate report. In some respects it contained a few pretty harsh verdicts about the changes needed.

The sale of three Toronto restaurants earlier this month, and plans for disposal of more in western Ontario, are evidence of the type of program contemplated. It also includes, however, additional units where these appear profitable.

Even before the report was ready, Lawson schemed a complete realignment of all operations.

"We have no alternative to running a profitable business," he told FP at the time. "This means a series of measures to eradicate inefficiency, duplication of service, marginal operations, and the disposal of segments and products which do not come up to new standards."

GAGNON

One example: The company had been split up in many pieces. It was later decided to pull it together into five main groups.

Now the reorganization program will result in the setting up of three virtually autonomous divisions, each with a vice-president who has "all the authority he wants, and more".

Bruce M. Draper, 46, will head what may prove the most promising division, the fast-growing industrial food service and wholesale operations. He joined the company in 1950, and prior to that was with **Hudson's Bay Co.** He has been head of Canadian Food's Honey Dew coffee shops as a general manager and vice-president.

MARTYN

Roger E. Gagnon, 42, will be responsible for the more than problematic restaurant division which includes the **Childs** and **Muirheads** operations and the Honey Dew coffee shops. Gagnon who was with the company before, has a reputation as a highly experienced restaurant operator in the U. S. and Canada.

Canadian Food's bakery division, including **Picardy, Hunt's** and **Woman's Bakery**, will be the responsibility of Raymond H. Hergert, 48. He joined Hunt's in 1928 and stayed on when Canadian Food acquired the company in 1953.

Corporate operations will be managed by Howe Martyn, 52, who has a 25-year marketing background in 26 countries, and D. R. Gilmaster who received his C.A. degree about 10 years ago and who was a controller of **Johnson & Johnson Ltd.**, Montreal, before coming to Canadian Food. Both joined the company in 1959. This is the top-level team with which Lewis Lawson hopes to build a profitable business.

GILMASTER

Lawson himself, who served in World War I, has had executive experience in the U. K. and the U. S. as well as in Canada. He came to Canadian Food from **Glidden Co.**, Canadian subsidiary of the Glidden paint firm in the U. S. He was executive vice-president of Glidden.

He believes that there is considerable potential for expansion of the prepared food business in this country.

New business should come to a large extent from young and new Canadians and from the suburbanites who go to work and have little time for housework. Further growth potential is also seen in the out-of-town plant locations for industrial catering and schools for institutional food service.

Bakeries and coffee shops will follow the suburban trend. Restaurants will be overhauled to regain their distinctive status, he says.

Bakery products are already being sold over special counters in **Loblaw** and **Dominion** stores in many parts of the country. Canadian Food wants to expand this kind of merchandising.

Wholesale and retail operations in the U. S. for most of Canadian Food's products are also under consideration, although this may be some time away.

The company should end a year of great changes next March with sales approximately the same as in fiscal 1958, $28.5 million.

But no profit is expected. Shareholders undoubtedly will have to wait for some time yet before resumption of dividends is possible.

Arrears on the 4½% preferred stock total $647,875 ($25.87 per share), and on the class A, $925,000 ($9.25 per share). The last common dividend was paid in 1949.

Executives, as well as holders of the 200,000 common shares now outstanding, have a special interest in seeing this backlog of more than $1.5 million arrears cleared away. President Lawson has been granted an option on 20,000 common shares at $3 per share (recent market: $3.50 bid, $3.75 asked). A further 22,500 are under option to other executives at the same price.

Also interested: **Argus Corp.**, which no longer reports its exact Canadian Food holdings, had about 30,000 class A shares and 46,000 common when it last listed them separately (1950).

Whether the arrears can be eliminated without a capital reorganization remains to be seen. However, investors are evidently hopeful that the management changes will produce tangible benefits.

The preferred stock, which sold as low as $41¼ last May, has traded recently in the $55-$60 range. The class A, $53¾ in November, sold as high as $9 a share last week. The common sold as low as $2½ in March last year and $3.40 at the end of December.

Hope is not a new experience for Canadian Food shareholders, but in the past it has been followed closely by disappointment. This time, they're hoping their hopes will bear fruit.

BANK BUILDING

FREDERICTON, N.B. — **Imperial Bank of Canada** will open a branch here later in the year. A lot has been purchased on downtown Queen St. for erection of a two-story building with 33-ft. frontage, 165-ft. depth. Construction will start in spring and be completed by fall.

Brewery Head Sees Price Rise

MONTREAL (Staff) — Prices of beer going up this year?

They could, unless brewers get some tax relief, says **Dow Brewery** president J. A. Derochers.

At the annual meeting of shareholders this week, Derochers noted several tax increases which became effective in 1959. These, he said, were generally absorbed by brewers.

"However, our costs will be higher in 1960, in spite of greater efficiency, and we may be forced to increase prices unless some relief is obtained in the form of tax reductions," Derochers warned.

He told shareholders company is continuing its long-range plant and equipment improvement program. Capital expenditures in 1960 are expected to amount to $1.1 million, down from $1.5 million in 1959.

Due to a very warm summer and to livelier economic activity, 1959 was a good year for the Canadian brewing industry generally, Derochers said.

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Make Rambler in Canada, Maybe at Toronto Plant

American Motors will resume production in Canada with its 1961 models.

Ramblers, and possibly the Ambassador line, will be assembled and some component parts manufactured in this country.

This was revealed this week concurrently with announcement of the appointment of Earle K. Brownridge, formerly president of **Orenda Engines Ltd.**, to the newly created position of executive vice-president and general manager of **American Motors (Canada) Ltd.**

Company probably will build or lease a new plant — almost certainly in the Toronto area.

The company started production in Canada late in 1949, on its 1950 models, and continued manufacturing operations at its plant on Danforth Ave., Toronto, until completion of the 1957 model run.

Since that time all its cars sold in Canada have been imported from the company's plant at Kenosha, Wis.

Decision to resume production in Canada followed a sharp rise in Rambler sales in this country in 1959 — to approximately 11,000 units, a gain of 73% over 1958.

That was the greatest volume reached by American Motors in Canada since World War II.

Brownridge will direct all phases of the Canadian operation, including sales, finance, procurement and manufacturing.

Leo E. Fenn, vice-president, sales, will continue in active supervision of the Canadian sales operation.

OPEN TRUST BRANCH

For the first time in 96 years, directors of **Huron & Erie Mortgage Corp.** and **Canada Trust Co.** met this week away from the London head office. Special meeting was held to mark opening of new branch office at King St. and Queen St., St. Catharines, Ont.

Sobey to Borrow; Sales Rise 14.7%

MONTREAL (Staff) — **Sobey Leased Properties Ltd.** is considering private placement of about $500,000 in bonds, FP understands. No further details of financing are available.

Frank Sobey, president of **Sobeys Stores Ltd.**, reports sales of the Maritime grocery chain for the 10 weeks ended Jan. 9, 1960, were 14.7% higher than in corresponding 1958-59.

The increase is due both to the greater turnover and to the fact that more Sobeys units were operating in the most recent period, he says.

ANNOUNCEMENT

ELECTROHOME APPOINTMENT

IAN J. MAIN

The appointment of Ian J. Main as sales manager for the Dealer Products Department has been announced by Howard W. Main, general sales manager, Electrohome Products Division of Dominion Electrohome Industries Limited. Mr. Main will be located in Kitchener, where Electrohome's offices and plants are centered. A graduate of the University of Western Ontario, Mr. Main has been in sales with Electrohome for six years, the last two as supervisor of field sales for the Dealer Products Department.

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Cockshutt Buying Into Real Estate?

By HENK HOPPENER

Cockshutt Farm Equipment has concluded an agreement to acquire 100% of the capital stock of a firm "whose interests and activities are outside the field in which Cockshutt has traditionally operated," President Benno M. Bechhold informs FP.

The agreement is subject to approval by the board of directors. A directors' meeting will be held Feb. 2, the same day as the company annual meeting of shareholders.

Bechhold would not give further details until the proposals could be dealt with by directors. Street sources indicate the deal involves real estate operations in the western U. S.

The agreement was prompted by company's intent to broaden the basis of its future sources of income, the Cockshutt president states.

Bechhold denied that an offer had been made for the farm equipment operations of his company, or that a price of $25 million or better had been discussed.

"Several groups are interested in Cockshutt," he said. "Neither the price nor the conditions have inspired final discussions.

"Conversations with various manufacturers in Europe and in the U. S., which have been in progress for some time, are still continuing."

Final outcome of the talks may be merger or sale. So far, however, they have concerned the distribution of Cockshutt products in North American territories where the company either does not sell at all, or in unsatisfactory volume.

The talks have also included possible distribution of products which Cockshutt does not make but intends to import in the immediate future. If sales volume justified it, company eventually would consider manufacture of these products under license, the president says.

Mr. Bechhold and a team of Cockshutt experts traveled to Europe last summer and had discussions with a number of West German manufacturers. Current talks are mainly with German parties, it is understood.

"In most of the recent conversations, the word merger has cropped up," Bechhold told FP.

Company's attitude has always been, and still is, that it will "consider any type of agreement, including merger or sale, but that each case must be judged on its own merits," he said.

Negotiations have so far resulted in an arrangement for the distribution of Cockshutt products in the state of California.

At least three more proposed agreements are approaching a successful conclusion.

President Bechhold says they involve distribution in Canada by Cockshutt of products made by two European manufacturers, and the distribution of Cockshutt products in certain regions of the U. S.

The desire to make fuller use of company's manufacturing facilities and sales organization is the main concern underlying all negotiations, Mr. Bechhold said.

Company reported substantially improved sales and a sharp increase in earnings for fiscal 1959.

Earnings for the year ended Oct. 31 were up to $1.67 per share from 13c per share in 1958. The net profit was $1,813,164 compared with $137,450 in fiscal 1958. This was company's highest net profit since 1952 when it touched $2.9 million.

Sales rose to $38.7 million from $33.2 million in 1958. Company looks forward to an increase in sales in the next 12 months, Bechhold stated in a letter to shareholders.

ADDS LINES

Hercules Trading Corp., Wilmington, Del., by arrangement with **Harrisons & Crosfield (Canada)**, has appointed **Canadian Industries Ltd.** its distributor of Hi-Fax high density polyethylene. C-I-L, first producer of low density polyethylene resins in Canada, already distributes polypropylene and chlorinated polyether under agreements with the Delaware company.

NOTICE

Would anyone having knowledge of the late Mrs. Margaret Watson of 1 Hathaway Road Southbourne, Bournemouth, Hants, England, communicate with the undersigned.

John H. McDonald, Solicitor,
19 Daly Ave., Ottawa 2, Ontario

Why They're Moving

Facts and comment on what's going on in the market and rumors behind some of the moves.

By P. T. DURRANT

Recent trading in shares of **Agnew-Surpass Shoe Stores** has seen market price climb to a 1959/60 high of $21 from year-end close of $19. The stock, which normally trades lightly, turned over 5,765 shares in the last two weeks. Mid-week price: $20⅛. Activity suggests possible buying of stock by speculators in anticipation of shareholders approving an employees' stock option plan at a meeting to be held Jan. 27 (FP, Jan. 9). If the plan is approved, company will be authorized to buy up 40,000 shares, either privately or on the open market, at up to $30 per share. Employees could purchase these shares later at average cost to company.

Agnew-Surpass is enjoying a very satisfactory year, FP is told. However, it is too early yet to say how it will compare with fiscal year ended May 31, 1959 (net was $1.57 per common share). December sales were good although overshoes and other winter footwear have so far moved somewhat slowly. Company has opened six new stores in the last six months; 15 to 20 more are planned for 1960.

Common stock of **Sicard Inc.**, Quebec equipment maker, has advanced to a high of $8¾ from $7 since beginning of this month. Recent price: $8. Last year the shares traded between a high of $7½, a low of $6. Strength is apparently due to prospect of good earnings in 1959. The annual report will be out in another month. Company says net profit is expected to exceed substantially the 60c per share attained in 1958. Earnings for six months ended June 30, 1959, were 40c per share.

Sicard paid initial half-yearly dividend on present common of 10c on Jan. 2; at indicated annual dividend rate of 20c, the stock yields 2.50% at current market.

* * *

A. V. Roe Canada stock faltered to a new all-time low ($6⅜) following company statement that the 1960 picture is for reduced earnings. In addition, the second quarterly dividend on the common has been omitted (FP, Jan. 9). Recent price compares with highs of $13⅜ in 1959, $15⅞ in 1958, $25½ in 1957 and $18⅛ in 1956.

Company is carrying out vigorous sales programs in its other industrial operations to replace lost volume in the aeronautical division, a spokesman said recently.

Stock of **Premier Steel Mills**, Edmonton, touched a 1959/60 high of $9½ last week, later eased to $9. The shares had earlier moved up from $4.50 to close 1959 at $9. Company has reported net profit of $1.11 per share for year ended Oct. 31, 1959, vs. previous year's 64c. At recent market, the stock is selling at 8.1 times latest reported earnings. No dividends have been paid on the common yet.

Report of substantially improved earnings for **Kelvinator of Canada Ltd.** was followed by a $1.50 jump in market price of the stock to $10½ in active trade (7,810 shares) last week. Mid-week price: $10. The shares traded between a high of $12⅞, a low of $7⅞ in 1959, ended the year at $8⅞.

Net profit was equal to $1.15 per share in year ended Sept. 30, 1959, (56c the year before). Current price/earnings ratio is 9.1. No dividends have been paid since 1957 fiscal year.

Dover Industries Ltd. stock at $14, a 1959/60 high, is up from $12 earlier this month. Range in 1959 was between $13-$10½. Earnings in first quarter of current fiscal year were the same as a year ago, annual meeting was told. If first quarter's trend continues, current year should be a good one for company, Mrs. M. M. Band, president, says. In year ended Sept. 30, 1959, net profit was $1.75 per share.

Food issues continue to trade at depressed levels; three have set 1959/60 lows in recent trading. **Dominion Stores** slipped to $48½, has since firmed to $51⅜ (1959 high—$92½); seldom-traded **Loblaw Groceterias** common turned over 10 shares at $100, down from previous sale last August at $123 (1959 high—$156½); **M. Loeb Ltd.** touched $7 this week on the Montreal board, down from $7⅞ a week ago (1959 high—$15).

Current prices (with 1959 range) for other food stocks are: **Loblaw Companies** B, $26 ($42-$25); **Steinbergs** A, $22¾ ($35⅞-$22⅝); **Kelly-Douglas** A, $7 ($11⅜-$6.75); **Sobeys Stores** A, $12¾ ($16-$12⅝).

Bridge & Tank Profit Lower

Earnings of **Bridge & Tank Co. of Canada** for 1959 are estimated at $950,000, a decline of 5.9% from previous year's $1,009,069.

Net per share amounts to approximately $2.45, based on 347,898 shares outstanding, vs. $3.29 (275,153 shares) in 1958.

These results were achieved despite a general adverse trend in the industry and some effect on production as a result of the steel strike, A. B. Hill, president, reports.

"Bridge & Tank is entering 1960 with a larger backlog of orders than a year ago and prospects point to continued and possibly improved profits this year," Mr. Hill says.

Expansion of company's main Hamilton works at cost of $2.5 million is now under way. When the program is completed, the plant will handle the heaviest types of fabricated steelwork and steel platework in Canada.

The Hamilton plant of subsidiary **Ford-Smith Machine Co.** will also be expanded. Announcement is expected shortly of plans for construction of a second Canadian plant for another subsidiary, **Rheem Canada Ltd.**

This Firm Goes for Sales Opens New Zealand Branch

A Canadian firm has formed a subsidiary in Auckland to meet the expanding market in New Zealand where imports are controlled.

The firm: Wix Corp. of Toronto.

Their product: Complete range of oil, air and fuel filter cartridges for all automotive and industrial applications.

Wix Corp., formed in Toronto in 1942 by Lloyd W. Nourse (president) and his brother E. N. Nourse (secretary-treasurer) to make filters under license from a Gastonia, North Carolina, company of the same name, has been selling in the Antipodes for several years.

Motor Specialties Ltd., Auckland, one of New Zealand's largest automotive parts distributors, handled sales.

E. N. Nourse told FP: "A few months ago it became obvious that the growing filter market in New Zealand could not be serviced adequately from Canada because of restricted import permits. The demand has outpaced the New Zealand government's ability to issue import licenses without tending to upset their ratio of exports to imports."

The result was the formation of the subsidiary — Wix Corp. of New Zealand. Motor Specialties supplied half the capital.

It is planned that the New Zealand company will eventually service the entire South Pacific area.

Wix Corp. of Canada, which started operations in a downtown Toronto garage, makes filters in a 70,000-sq.-ft. plant in East York.

In addition to the Nourse brothers, senior officers of Wix Corp. are: R. N. Bagnell, general sales manager and N. G. Moreland, sales manager, automotive division.

Cdn. Breweries Sees Record Year

Record sales and improved earnings for **Canadian Breweries Ltd.** in 1960 were predicted by President Ian R. Dowie at the annual meeting this week.

Company expects to maintain its rate of growth in the U. S. and to improve sales in most provinces of Canada as well. As a result, improved earnings are expected.

General business outlook for 1960 is very promising, Dowie told shareholders, pointing out, however, that improved economic conditions in recent years have not always stepped up sales in the brewing industry.

Because of the sharp increase in adult population, sales of beer in the U. S. and Canada should reach a record high in 1960, he said.

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Note

By VINCENT EGAN

SOME SMALL ISSUES on the capital market this month have had receptions that fell somewhat short of an underwriter's ideal.

One, despite a 7% yield and a long no-call feature, apparently failed to find enough buyers in Canada and may be placed in the U. S.

Another will probably be sold, but much hard work is going into the task of selling a relatively small amount of stock.

* * *

Within a week or less, investors should have the choice of two new issues in the food retailing field.

A debenture issue of **Loblaws Leased Properties**, by **McLeod, Young, Weir**, which has been impending for some months, is now believed to be almost ready. Amount will be about $5 million; guessing is that yield will be just under 7%.

Dominion Securities is preparing a first mortgage bond issue of **Steinberg's Shopping Centres Ltd.**, the first financing by this subsidiary.

Later, it is expected that **Sobey Leased Properties Ltd.**, subsidiary of the Maritime grocery chain, will issue about $500,000 bonds for private placement.

* * *

Canadian investors will shortly be offered securities of **Dollar Land Corp.**, which is 90% owned by a new U. K. firm whose first issue was heavily oversubscribed Monday. The Canadian subsidiary is buying a big shopping centre in Yonkers, N.Y., and a smaller one in Chilliwack, B.C.

From the 10% of its capitalization now privately held in Canada, a secondary offering will be made consisting of units priced at $160. Each unit will include a $100, 7% 30-year debenture and six common shares.

* * *

An offering by Dominion Securities of $1 million **Crush International Ltd.** 6½% convertible preferred stock, at par of $100, was over-subscribed. Basis for conversion into common is $9¼ a share until Feb. 1, 1962, $10¾ for the next two years, and $12¾ for the following three years. Recent price: $8⅞.

* * *

The $30 million **Montreal Metropolitan Corp.** borrowing in New York (FP, Jan. 2) is said to have been deferred until next week . . . **Winnipeg** is expected to borrow about $3 million soon . . . Province of **Manitoba** is also planning a new issue.

* * *

Bell, Gouinlock & Co. was successful bidder on $1.5 million **Sarnia** (Ont.) 6½% one-to-20-year serials. Part of the issue will be offered in Canada on a 6.60% yield basis, the remainder in the U. S.

* * *

A syndicate headed by **Crédit Interprovincial** and **Dawson, Hannaford** has placed privately $3 million (U. S.) Montreal Protestant School Commission 5¾% 25-year sinking fund debentures, non-callable for 15 years, to yield 6.00%.

* * *

Equity financing is to be undertaken by **Cold Lake Pipe Line Co.**, a subsidiary of **Bonneville Oil & Refining Corp.**, to permit construction of a 13-mi. extension to its natural gas pipeline serving the RCAF base at Cold Lake, Alta.

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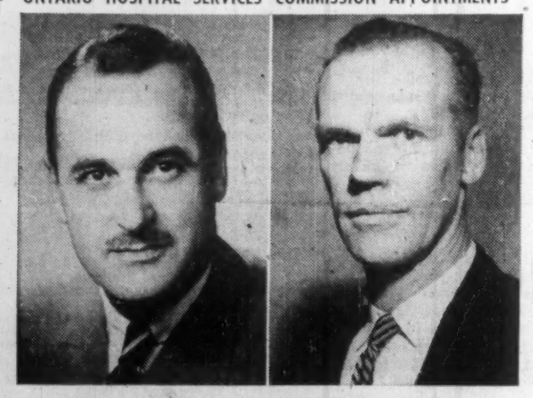

DAVID W. OGILVIE ROBERT E. FOSTER

Dr. R. W. Ian Urquhart, Chairman of the Ontario Hospital Services Commission, announces the appointment of Mr. David W. Ogilvie as General Manager of the Commission.

Mr. Ogilvie, former Director of the Ontario Blue Cross Plan, participated in the planning and development of Ontario Hospital Insurance and, since its inception, has been Director of the Commission's Hospital Insurance Branch.

Mr. Robert E. Foster, former Assistant Director of the Hospital Insurance Branch, will succeed Mr. Ogilvie as Director. Mr. Foster was for many years associated with Mr. Ogilvie in Blue Cross and played a very active part in the launching of Ontario Hospital Insurance.

Both appointments are effective immediately.

New Issue

$10,000,000

Industrial Acceptance Corporation Limited

(*Incorporated under the laws of Canada*)

6¾% Debentures due 1980

To be dated February 1, 1960 *To mature February 1, 1980*

A Purchase Fund will be provided whereby the Company will be obliged to use in each of the years 1961 to 1979 inclusive an amount of money equal to 4% of the principal amount of the Debentures issued for the purchase of such Debentures to the extent that such Debentures are available for purchase by the Company at a price not exceeding 99% of the principal amount plus accrued interest.

A copy of the prospectus will be furnished upon request.

We as principals offer these Debentures, if, as and when issued and received by us and subject to the approval of all legal matters on behalf of the Company by Messrs. O'Brien, Home, Hall & Nolan and on our behalf by Messrs. Bourgeois, Doheny, Day & Mackenzie.

PRICE: 99 and accrued interest to yield approximately 6.84%

It is expected that definitive Debentures of the Company will be available for delivery on or about February 1, 1960.

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This 6% Business

James Muir, president of the Royal Bank of Canada, is going to stir up a lot of people for a long time with his declaration that Ottawa should scrap the existing 6% legal ceiling on what the banks can charge their borrowers.

It will probably produce a barrage of misinformed comment about inflated bank profits. It will very likely breed a great deal of fatuous comment about the "plight" of the small borrower.

But Mr. Muir's proposal is wise. Generally prevailing interest rates are likely to be appreciably higher throughout the 1960s than they were in most of the 1950s. Unless the 6% ceiling is lifted, it will be cheaper to get money from the banks than from other lenders—if you can.

That's the big If. When the generally prevailing cost of borrowed money is close to 7%, every established borrower is going to use his bank credit at 6% to the limit. But if the bank rate is allowed to rise closer to the prevailing rate, the established borrower is more likely to seek cash through, for example, bond issues—leaving more for borrowers who are too small to raise money in the securities market.

The Muir proposal is also constructive. A more flexible lending rate for the chartered banks would help make monetary controls more effective in periods of tight money; the curb of price would help restrain the uneconomic use of scarce credit available.

About higher bank profits, Mr. Muir declares:

"Higher rates for loans, in the same credit market, mean higher costs for lenders; and, for the banks, these would take the form not only of lower prices on security sales but higher interest rates on savings deposits. This latter development would benefit the small saver who is surely at least as deserving as the small borrower."

Mr. Muir has nothing against a "maximum" chargeable rate. But he thinks the banks' lending charge should be flexible. He suggests, for example, attaching it perhaps ¾ of 1% above the rate on 91-day treasury bills which reflects weekly the price borrowers are willing to pay for credit accommodation.

This proposal, if acted upon, would help promote balanced growth in the Canadian economy and aid monetary restraint in preventing inflation. The time has come for the government to consider this 6% business objectively. This has nothing whatever to do with the specious nonsense being talked about the welfare of "big" versus "little" borrowers.

No Long Wait Here

Here's a record to beat.

The fiscal year of Consolidated Denison Mines, the big Elliot Lake uranium producer, ended Dec. 31, 1959. Its shareholders received the company's annual report this week. The annual meeting is being held Jan. 27 in Toronto.

This rapid-fire reporting schedule is remarkable. Except for financial institutions, most companies keep their shareholders waiting two, three or four months for their annual reports.

Even with the longer wait, few companies produce a report more complete than Denison's. It incorporates graphs, the comments of the president and general manager on the year's activities, and detailed financial statements in a 20-page pamphlet.

The early report required careful advance planning and scheduling of art work, printing, and mailing before the year-end. It meant having the accounts in good shape so the auditors could complete their work promptly. Directors were able to approve the finished package Jan. 12.

More companies should re-examine their present system to see if they can match this standard of promptness. Chances are they will increase their own efficiency in the process.

The P.O. and the Public

The insolence of office, as Shakespeare called it, is now so commonplace that it's not recognized when it appears.

There exists in Canada, as in other countries, an institution called the Post Office Department which has a monopoly in collecting and delivering letters.

Nobody really objects to it, on the understanding that it will offer mail service on equal terms to all. This is an implied contract between the P.O. and the public.

Yet recently the Canadian postal authorities once again undertook to refuse delivery of letters to anyone who dares to bet twopence on the British soccer pools.

It can be understood that the law forbids the use of the public mails to defraud. But do the statutes authorize the P.O. to deny its monopolistic service to whoever wants to stake three cents on a British lottery which has some pretensions to being a game of skill?

If so, the law is an ass. If not, this is a case of intolerable official impudence.

But the odd thing is that nobody gets excited about such bureaucratic efforts, statutory or not, to control the private behavior of the citizens. Are we falling into the archheresy that the individual exists for the service of the state and not vice versa?

Back Into the Frying Pan

Latest development on the swine front: The federal government has set up a complicated and expensive scheme of export control to prevent charges of dumping and violation of GATT.

It provides Canadians with the unfortunate spectacle of Ottawa frying in its own bacon fat. And it won't cure the basic ills of the hog raising industry.

Trouble started with the old price support policy for hogs, now abandoned. Every farmer and his neighbor got into the highly lucrative business of piling up a pork surplus.

To remedy this, the federal government initiated a new policy of deficiency payments whereby the market would be allowed to find its own level—and only to the smaller producers would a cash subsidy be paid.

But trouble isn't over. The new export controls reflect this. If there were no danger of subsidized overproduction, the controls would not be necessary.

In addition, the premium now appears to be on inefficiency. Farmers who raise the most hogs at the lowest cost get no subsidy at all. The marginal producer with a few pigs and no attempt at scientific feeding or management gets a fat government bonus.

And the new scheme also leaves the door wide open to finagling. To qualify for the subsidy, the farmer can only raise a limited number of hogs each year. As the cynical are only too ready to point out, the federal government may soon find there are a lot of farm babies as well as farm wives in the hog business.

Until Ottawa decides to abandon all forms of pork subsidy, fancy schemes will only keep it jumping out of the frying pan into the fire and back into the pan again.

What Causes Lung Cancer?

The sheer volume of gunk pouring out of automobile tail pipes produces figures almost as hard to grasp as those which tell the distance to the nearest star. Last year, one estimate says, the 70 million autos in the U. S. belched out 85 million tons of carbon monoxide, 100 million tons of organic vapors called hydro-carbons and 40 million tons of oxides of nitrogen.

The resilient, tolerant human frame can cope with carbon monoxide unless it's highly concentrated in a closed garage. Oxides of nitrogen produce "smog", a potent cause of traffic deaths and bronchial ills.

But the hydro-carbonate vapors contain carcinogenic or cancer-bearing elements.

According to Dr. C. D. Leake, of the medical college at Ohio State University, "the increasing incidence of lung cancer is quite as referable to increased city traffic as to cigarettes." Russian investigators have reached the same conclusion. Dr. E. J. Houdry, a leading American authority on petroleum chemistry, says that the rise in gasoline consumption in the U. S. in 1914-1950 "corresponds exactly to the estimate of a 19-fold increase in lung cancer mortality" in the same period.

The cigarette addict can stop smoking; but how is modern man, especially in cities, to escape car fumes? It can't be done. The best hope of relief is that research, now in progress, will produce a gasoline purged of its cancer threat.

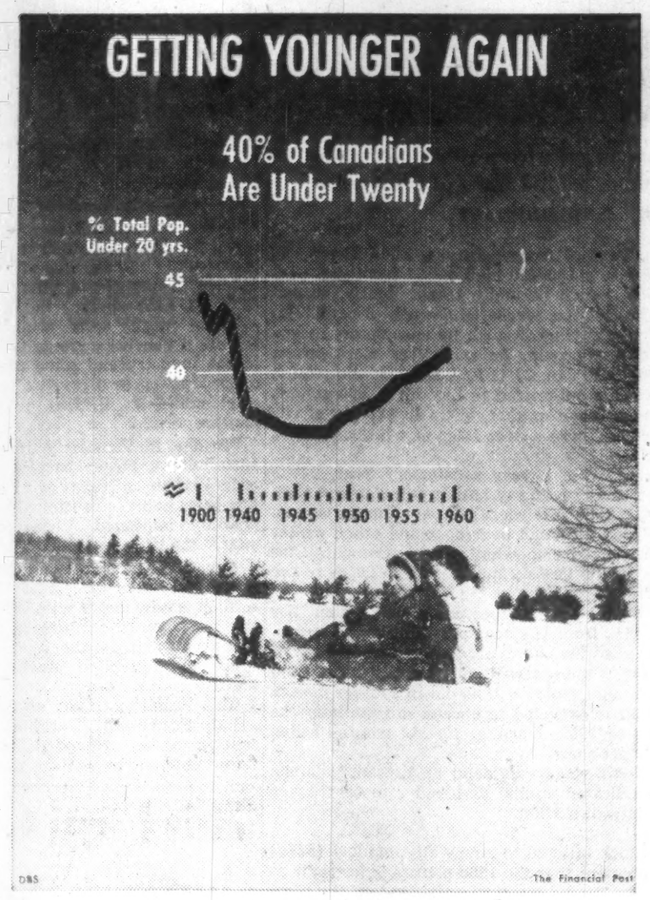
Meanwhile, to quote another American expert who blames both cigarettes and exhausts, "a chain-smoking city taxicab driver runs a chance of lung cancer 20 to 40 times as great as a non-smoking farmer." Said to be going out of style as a "way of life", farming may still be an excellent way of survival.

Ninety Tons of Knowledge

Hats off to Encyclopaedia Britannica of Canada Ltd.

This company is donating a set of its latest encyclopaedia to every qualified high school in the country. Some 1,600 sets (90 tons of books worth well over $1 million) will be going into the libraries of English-speaking schools over the next few weeks. Sets will later be presented to French-speaking schools.

Sure it's advertising promotion — and good promotion at that. But it's a very laudatory and practical gift to education too.



Post Scripts

Heads Canada's Newest

Dr. Malcolm G. Taylor, 44, associate professor of political economy at the University of Toronto is returning to his native Alberta this summer to head Canada's newest university, the University of Alberta at Calgary. Though administered by the same board of governors, in two years' time it will be entirely separate from the University of Alberta at Edmonton. Initial registration next fall is expected to be 1,200.

Dr. Taylor is perhaps best known for having been consultant to five provincial governments for the purpose of setting up hospital insurance schemes.

He is also a member of the University of Toronto President's Committee on Policy and Planning which is directing an expansion program to cost about $80 million by 1968.

Taylor received his graduate education at the University of California where he obtained his Ph.D. degree in 1949. He won two fellowships in Political Science and worked two years in the industrial relations department of the Henry Kaiser Corp. On returning to Canada he obtained three years' practical experience in government administration with the Health Services Planning Commission of Saskatchewan.

In 1951 he relinquished the position of director of the Saskatchewan Health Survey to become assistant professor of political science at the University of Toronto; he became associate professor in 1956. In 1952 he won a Rockefeller Foundation award to study health insurance in every province of Canada.

Last fall Taylor was elected national president of the Institute of Public Administration of Canada. Founded 12 years ago this is an association of public officials in federal, provincial and municipal governments and university professors in the social sciences.

Dr. Taylor is married and has two children.

DR. TAYLOR

He Will Get It Going

As vice-president and general manager of Nova Scotia Pulp Ltd., Walter Holland is charged with the responsibility of getting the company's planned $40 million pulp mill off the drawing boards and into operation.

With 33 years' experience in the industry, Holland is well qualified to fulfill the duties as operating head of Nova Scotia's newest big company. Part of Sweden's giant Stora Kopparberg complex, Nova Scotia Pulp is building its mill at Point Tupper on the Strait of Canso.

Holland is living in Boston. He plans to move to Nova Scotia in 1960. An ardent fisherman—he even makes his own fly rods—he is looking forward to the exercise of his piscatorial skills in the abundant waters of the Maritimes.

Born in the Ottawa Valley town of Hawkesbury, Ont., in 1908, Walter Holland is a nephew of Walter Grenville, who developed Ten/Test wall board. His father and grandfather both were associated with the pulp industry.

Holland's first job was with the Pulp and Paper Research Institute in Montreal. Later he became general superintendent of the Quebec North Shore Paper Co. at Baie Comeau, then mill manager of the Oxford Paper Co. at Rumford, Me.

MR. HOLLAND

In 1955 he became vice-president in charge of the pulp division of British Columbia Forest Products Ltd. and was responsible for the Crofton project, a bleached sulphate pulp mill completed early in 1958 on Vancouver Island.

Married to the former Louise Pattee of Hawkesbury, Holland has four sons.

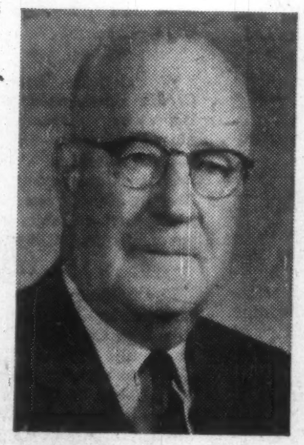
Covers Big Territory

At an age when most men are seeking the pastures of retirement, James A. Irwin of Winnipeg has been elected president of the North West Travellers Association of Canada.

The 11,000 member organization started in 1882 and Irwin has been a member of it for 37 of its 77 years. The Association has been a life hobby, in fact his main one, which was one of the reasons why he accepted election as its chief officer for 1960.

Born in Collingwood, Ontario, where his father was a cattle buyer James Irwin was on his own after he got the education available in his home town. At 16 he started work as a bank clerk. In 1915 he enlisted in Winnipeg with the the 4th Canadian Mounted Rifles, served a year and a half in France, was invalided to England in 1917, and when the Armistice came was on the Army audit staff in London. Coming home he took a job on the sales staff of Swift Canadian Co. which transferred him to Brandon in 1922. Four years later he joined the sales force of Imperial Oil at Brandon and is now a sales supervisor with territory from the lakehead to the Saskatchewan boundary.

Married with his home in Winnipeg, his youngest son is a member of the legal staff of Canadian National Railways. An older son was an RCAF pilot in the Second World War and one of its 1942 overseas casualties.



MR. IRWIN

Jack Paterson Says . . .

THERE'S nothing like applied psychology to smarten up our teen-agers. Some of them. A big, jovial friend of mine proved it recently with his paper kid.

One of those open-faced kids of 15, crew-cut, brisk in business, polite. Kind too. Did little extras, like helping out when there was a big cake to be eaten, or hot soup to be got rid of on a rainy night.

When the baby came he was first there with a trinket, helped bathe the little butterball, was in and out of the bathroom like one of the family.

My friend is close to the automotive business, sometimes too close. When he changes for dinner he leaves his soiled clothes in the bathroom. One morning a fine pen and pencil set, a birthday gift from his wife, was missing from his workshirt pocket.

Send Him Down

My big friend had been a kid once himself. Very recently. Instead of accusing the honest-eyed lad of stealing, he instructed his wife: "When that paper kid calls tonight send him down to the junk room."

The kid arrived. Our friend, a Peter Fixitt fan, was working on four stereo speakers, plumbing the spare john and wiring for bar lighting, while trying to keep space clear to build a boat. He let the kid watch a minute, then applied his psychology.

"You know, Alvin, you can help me. You're bright, and you get around. If you see a kid with a new green pen and pencil set, it's mine. It cost $20. Tell him I want it back. Okay?"

"Why, sure, Mr. Myer." The kid was all honest eyes. "But I'm so busy with my paper route and helping out at home that I don't see many kids."

"Tell him," my friend went on, "that I want it back by tomorrow morning."

The kid spread his hands in a gesture of helplessness. "Gee, Mr. Myer, I'd sure like to help out, but I wouldn't be able to find any kid tonight."

My big friend straightened to the floor joists. "They have a private identification mark. Alvin—have you ever been taken into a furnace-room and had the living hell beaten out of you?"

The honest eyes grew. "No, sir."

You Tell Him

"Well, you tell this kid that's what happens to him if that pen and pencil aren't at my front door by morning."

More honest eyes, and an honest frown. "If I see any kid with them I'll sure tell him, Mr. Myer."

Before turning in at midnight my friend opened the front door. There was no green pen and pencil set. Or any other color. At seven o'clock next morning there was.

The paper kid was even more friendly, stopped to help my friend with his basement projects. On Saturday night before leaving he stepped into the main-floor bathroom to wash the plumbing grime from his hands. He was in there only seconds, and left on his cheery way. From a wallet of $890 office money, a lone $20 bill was missing. There was no way of proving it had ever been there.

Nothing like applied psychology to smarten up our teen-agers. Some of them.

Jack Paterson writes light articles from Courtenay, B.C.

What Others Are Saying

Profits are the Spur

Fort Erie (Ont.) Letter-Review

Fact about profits that is too often forgotten or ignored is that only alternative to the profit and loss system with its marked discipline is the discipline of totalitarian socialism. Those who undermine faith in the profit and loss system pave the way for more and more socialism, more and more state intervention and control in the economic life of the country.

Profits are what built Canada into the great industrial nation it is today. Orders for new plant and equipment came out of profits. New orders in turn provide employment. And most of the spending by government, the source of the funds to provide social security for Canadian citizens, comes out of profits. Industries that, because of excessive taxation or unreasonable wage demands, or undue restrictions and regulations, become unprofitable, are unable to contribute to the revenues needed by governments.

SOME OLD SKILLS were missed when the electrical power failed during the Ontario ice storm, points out the **Ottawa Journal.** "Farmers and their families, accustomed to mechanical milkers for 10 to 20 years had in many cases forgotten how to milk cows by hand and ran into no small grief."

* * *

WE JUST CAN'T AGREE with those who contend that the human race is headed straight for hell, argues the **Wingham (Ont.) Advance-Times** which points out: "Churches and good works of all kinds are being supported as they never have been before. The aggregate of thought and attention to the needs of others has reached an all-time high, and is on a steady increase. We will never be perfect, but there are quite a few folk we know who are making an honest effort."

* * *

"TIGHT MONEY" can go too far when it curbs vital projects, declares the **Fredericton Gleaner.** "When so-called anti-inflation measures cut off projects which increase the real wealth of the state, they actually make the inflationary situation worse instead of better. They contract the productive capacity of a nation at a time when all signs point to a need for expansion."

* * *

LET'S HAVE A LOT of gold coins to mark our hundredth anniversary, suggests the **Moose Jaw Times-Herald.** "Why stop at $100? Why not ask for $25, $10 and $5 gold pieces? Otherwise the number of coins circulated will not be large. Most of us never get our hands on a $100 bill and when we do we seldom keep it for any length of time."

* * *

NOT TOO HOPEFUL of getting facts out of provincial government headquarters, in this election year, is the **Vernon (B.C.) News.** It says: "Reasonable, factual discussion of issues seems impossible with Victoria these days. How long will the public tolerate bluster for fact, half truths for the truth, wild attack instead of rebuttal?"

* * *

WE'RE NOT SO FREE in this country declares the **Owen Sound Sun-Times** which cites the case of an Ontario farmer denied a market for her tobacco crop. "One can very well appreciate such officials advising against growing tobacco, or anything else, on land that is not suited to such growth. But to deny a person the right to do so is a different matter. Somehow we of this nation do not accept kindly such dictatorial rules, even when the purpose is good in the intention."

Stop Me If . . .

Mary: "So you bought a new fur coat after all. I thought you said your husband could not afford it this year."

Jean: "So I did but we had a stroke of luck. My husband broke his leg and the insurance company paid him $300."

* * *

What causes highway accidents?
Well, experts all conclude:
The gasoline is too refined.
The driver much too crude.

* * *

"I'm getting a divorce — my wife called me an idiot."

"That's no grounds for divorce."

"Well, it was like this. I came home and found my wife in the arms of the man next door, and I said 'What's the meaning of this?' and she said, 'Can't you see, you idiot?' "

* * *

After an unsuccessful attempt to break into the movies the young lady had returned to her home town and was describing the experience to her best friend:

"Every time I thought I heard opportunity knocking," she said, "it was just another wolf at the door."

* * *

The community barber shop gathering was enlivened by one graybeard's contention that in every argument with his wife, he always had the last word.

"Amazing if true," spoke up a listener. "How do you manage it?"

"Why," said the graybeard, "I apologize."

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January 23, 1960

Canada's Ballet Pirouettes to Fame

As Ambassadors, They Do Good Job at Home and Abroad . . .

By J. B. McGEACHY

THE NATIONAL BALLET of Canada, now in its ninth season, has an international reputation that most Canadians know little or nothing about.

Even Russians who have seen it, and their Bolshoi is reckoned the world's best, think it excellent. So do the American critics whose opinions are always given full value here, and often more. This should prove it to Canadians.

Now filling theatres in the southern states, the National Ballet will start its 1960 Canadian season by playing all February in Toronto.

With a large, established home audience (nearly 100,000 last winter), the company should again do well at Canadian box-offices, but this won't be enough to ensure success or even survival; for ballet, like grand opera, is costly to produce and put on the road.

So, along with every other ballet group in the world, it will need extra money even if it packs the customers in at the highest prices the traffic will bear. It will be asking for gifts in ensuing weeks. It deserves this help for several reasons. One is that it has put Canada on the artistic map like nothing else, except perhaps Stratford.

There's no explaining why Canada, still short of world fame for poetry, novels or painting, should in a decade suddenly give birth to theatre as distinguished as the Stratford Festival and the National Ballet. Phenomena like this happen in other countries; the right way to take them is with thanks and no questions asked.

To many it may seem especially odd that an esoteric art like ballet, mixed up in our minds with grand dukes, champagne, sophistication and a high social gloss, should blossom in a country where the inhabitants, as some suppose, are exclusively mounties, frontiersmen, Indians and Eskimos, long-faced Puritans and crass commercial types too busy making money to have time for any art.

This is not a caricature of the image of Canada harbored in some minds far, or not so far, from our borders.

CLASSICAL

Here is the reason I mention it. So far as I can make out, our ballet dancers have done more than anybody else, probably more than the External Affairs Department, to eradicate from ordinary North American minds the picture of Canada as a backwoods and to convince people that this is a civilized place with an independent culture and first-rate artists of its own breeding and nurture.

You might think that Stratford, the National Opera Festival or even (God save the mark) our abstract painters could do as well. The point is that the National Ballet has traveled a lot more, and so reached a wider public, in foreign parts. **It has played in 109 cities (including New York and Chicago) in 35 American states, plus Mexico City, and scored a spectacular success. Don't take my word for it. I shall produce the evidence in a moment.**

The National Ballet started in 1951 (with a bow to Winnipeg and Gweneth Lloyd as the pioneers) and was at once lucky in finding Celia Franca as its artistic director.

Miss Franca was then lucky in discovering a big pool of talent. A fine dancer herself, she has proved to be a genius at organizing, training and lighting a fire under a young ballet company. With impeccable taste and the daemonic energy that's needed to get anywhere in ballet, she and her teaching staff have brought the troupe to such a pitch that for some seasons now they have been doing difficult, demanding classics like "Swan Lake" with professional aplomb.

Without exception the 41 dancers are Canadian citizens, nearly all by birth. They have a permanent repertory of 36 ballets, classic and modern. Seventeen ballets have been written for them by Canadian choreographers. They have danced to the music of nine Canadian composers. **Their average work season is now close to 40 weeks. Though their equity pay is modest, they can live on it (ballet dancers must eat even if poets and painters can do without grub) and so they are a permanent, professional company, made in Canada.**

They are seasoned troupers after many journeys, excitements and misadventures. In Pittsburgh once, when the worst blizzard of a decade kept people away in multitudes, they came near disaster; but they have had triumphs too.

In Mexico City, where they ran three weeks, altitude got some of them down. During performances, Mexican firemen stood by with oxygen tanks. Additional exits were arranged so that those in need could pirouette or leap lightly off stage, take a sniff of the life-saving ozone and get back to work.

In the Mexican capital our dancers began in the swank Palace of Arts which had room for the carriage trade and little more. But such was the demand for tickets that they had to be shifted to the much larger Auditorium where the great unwashed could cram the seats. **They came and shook the rafters. With them came the President's wife — eleven times. Remember that Mexico is a land bursting at the seams with art and artists.**

How good, then, are these dancers? Having seen ballet in London, Paris, Berlin, New York and a few other places, I think they are very good indeed; but who am I to pontificate? Let us hear from experts; but not, if you don't mind, from Canadian critics. A fine body of men, they are at this stage too discordant to yield a quotable theme tune or even a keynote.

Not many decades ago, to digress for a moment, it appeared to be every Canadian critic's patriotic duty to sing hosannas to any native book, painting or piece of music, good, bad or mediocre. The tender shoots, it was thought, needed sunshine, not hailstones.

Now the pendulum has swung completely around. Today we have ferocious critics who feel obliged to beat Canadian artists over the head with baseball bats. **The theory of this school evidently is that anyone who thinks that a Canadian work is any good is a dirty chauvinist.**

I don't intervene in the argument, I only note that the bludgeon-and-mayhem style, though it may nettle and even infuriate many, still makes Canadians leery of believing a Canadian critic who says "bravo" to a home-grown work.

So let us look abroad, for authentic, dispassionate wisdom.

"Most exciting and rewarding ballet achievement Miami has ever had the good fortune to view." — Miami Herald. (Maybe Miami is no citadel of culture but that's what the man said; and very nice too.) "Brilliant success." — Mexico City Excelsior. "Highlights of our dance

MODERN

year." — N.Y. Herald-Tribune. "Canada Ballet Conquers." — San Francisco Call-Bulletin. "Brilliant assortment of leaps and entrechats and the kind of elevation that makes for audience excitement." — Los Angeles Times.

So it goes in the U. S. press whenever our ballet appears; and don't say the writers are just showing politeness.

There's no "Be Kind to Canada Week" in American criticism; remember what happened to "Tit-Coq" in New York. Our dancers not only win both succès d'estime and public acclaim. They're asked back, repeatedly, and that's the test.

They have played more than once in Washington, D.C.; and an observer of their last visit was R. A. Farquharson, one-time Toronto journalist who is now the Canadian embassy's press officer. He reported that the Canadian ballet produced a tremendous buzz of happy and exclamatory comment in the diplomatic world. Our ballet, he says, is the "principal emissary of Canadian culture in the U. S.". **The Russian ambassador and his wife, having seen our dancers once, went back to see and congratulate them again; and any Russian, even an ambassador, knows good ballet when he sees it.**

What a pity that these foreign accolades are necessary to convince Canadians that something excellent has come out of this Nazareth!

How has the National Ballet fared in its own territory? It has a large, faithful and growing public in Canadian towns and cities, 53 in all, from Victoria to Halifax.

Miss Franca and company, be it noted, have never produced art for art's sake or the amusement of other artists. They wanted a mass audience and they have built it. What is more, they notice, as all performers can, that this audience becomes more critical and demanding with experience. Some of our balletomanes have seen "Swan Lake" or "Nutcracker" five or six times, as often as they may have heard Beethoven's "Eroica", and they now see fine points that escaped them earlier.

So the National Ballet, besides giving great pleasure to people who just like to watch dancing, has sharpened public taste in one of the most delicious of the arts.

One other thing it has done is to get French-Canadians and English-speakers into the same theatre; and that is quite a trick. In Montreal, Her Majesty's is the only house that will take full-scale ballet. The French think of it as a theatre for "les Anglais" and usually stay away but they have flocked to see Canadian ballet with their Anglo-Saxon compatriots. This bonne entente, I am told, is mainly the work of André Marcil, head of the Ballet Guild in Montreal.

Cheers for M. Marcil. "Malt does more than Milton can, to justify God's ways to man," says Housman. Apparently art does more than Ottawa can to justify Toronto to Quebecois.

So much for the artistic and, shall we say, socio-political achievements of the National Ballet. Let us look at its business and financial set-up.

The National Ballet Guild is in charge. It's a voluntary society, a non-shareholding, non-profit-making corporation. Members are business and professional men with an interest in art. President is E. A. Goodman, QC, of Toronto. General manager is Carmen Guild (for variety, it rhymes with riled).

The Guild controls the National Ballet budget, pays salaries, raises money, approves or vetoes tours.

The Guild also runs a summer ballet school where acblytes learn to dance in the holidays; but last September it started a second teaching enterprise that's unique in North America. It's a private, residential, fee-charging school, in Toronto, where young persons with a talent and passion for the dance can take academic and ballet lessons at the same time.

Between arithmetic and French, half an hour of arabesque; between geography and history, a spot of pas de basque. That's how it goes. The experiment is working well and the school, in time, will be self-supporting.

For 1959-60 the Guild's gross budget is $857,000, big business indeed. This covers salaries, administration, cost of running the two schools, travel, everything.

Of that $857,000 the Guild expects to recover in operating revenue, nearly all box office, about $625,000 or 73%, which is very good going. The Canada Council makes a substantial grant ($80,000 promised for this season) and Metro Toronto adds a much smaller one; but these windfalls will leave the Guild still about $150,000 shy of making ends meet.

Is there any way to increase the box-office take? Well, Mr. Guild is up to all known tricks of the trade, including the sale of blocks of seats, or the whole house, at reduced prices to societies that want to raise money for good causes. The auxiliary of Notre Dame Hospital in Montreal used to hold bingo games but finds that organizing a ballet night is much more glamorous. Taking the whole house for one performance, it can turn a $4,000 profit.

Could money be saved by cutting out tours? Perhaps, but tours in the U. S. usually pay or break even because there are many stopping-places close together. It's the cross-Canada trek with full cast, sets and costumes (nothing less will do, under Iron Franca rules) that could break the bank; and of course this is a tour that can't be abandoned because it's the National Ballet's business to entertain the nation.

So it works out that the Guild needs $150,000 or better in gifts; but this doesn't look like a tough problem. Toronto's United Appeal can raise $9 million. Our ideas about philanthropy are haywire indeed if the country can't dig up 1.6% of that sum for a joyful, artistic enterprise that has become one of our not too numerous crown jewels and a great national asset.

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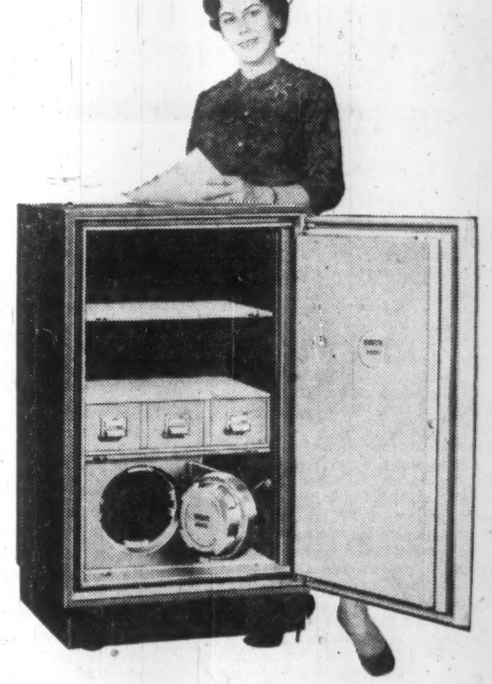

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Ottawa's New Hog Controls Have Some Hidden Meaning

OTTAWA (Staff) — The results of the government's new policy on pork and hogs will not be what you would expect on a first glance at the new export control.

Government licenses are now required to export all pork products. Exports to any destination except the U. S. may be made under a general license: individual licenses are required for the U. S.

Yet the 1960 picture as forecast here, will be:

- **Export to U. S. continuing at about the same rate** as recent years.
- **A fall in Canadian prices,** probably to about the equivalent of $18 cwt at Toronto, (from $23.65 last week).
- **Sales to the U. K. for the first time in many years,** under the new quota of 25,000 tons, all available to Canada, making U. K. almost as good a market as U. S.
- **Removal of import ban on U. S. pork** coming into Canada, for the first time since 1952.
- **No large volume of imports, but cheaper pork** for Canadian housewives.
- **No more accumulation of government stocks** and less drain on the Treasury.
- **No release of government stocks to the market,** at least for some time; though some give-aways to charities.

All this is expected to result from the change on Jan. 11 from a government price support for hogs to a limited system of deficiency payments.

For most of 1959 packers were buying their hogs at prices equivalent to about $23.65 (basis Toronto), and this is the price they must go on paying to avoid imposition of U. S. countervailing duties. Packers will pay the government the difference between market price and $23.65.

It is high in comparison with the recent average prices at Chicago, which have been between $16 and $16.50 (on a similar dressed basis).

But these prices are for the whole hog.

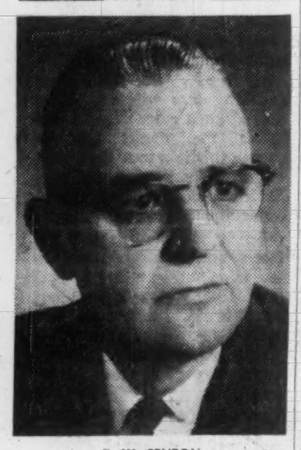
The packers sell premium cuts to the U. S., and somewhat higher Canadian prices for the rest of the carcass allow a competitive U. S. price.

The new export control is simply a device to forestall U. S. countervailing duties.

If the packer paid less than $23.65, while the government was paying deficiency payments to farmers up to this level, the U. S. department of agriculture could accuse Canada of running a double price system and subsidizing exports.

So long as the price of the exported pork on the hog is up to the level paid by the government, there is no subsidy, no double price system, and no justification for U. S. restrictions.

ANNOUNCEMENT



T. W. FENTON

Mr. T. W. Fenton has been appointed Vice-President, Manufacturing, according to an announcement made by S. J. Randall, President of General Steel Wares Limited. Mr. Fenton will be responsible for the operations of the Company's various plants located in Toronto, Montreal and London.

MOVE OFFICES

Don Mills Developments Ltd. has moved its offices from Don Alda House, Don Mills, to 491 Lawrence Ave. W., Toronto 12.

(Advertisement)

HOW I LICKED THE HIGH COST OF LIVING

By a Wall Street Journal Subscriber

High prices and taxes were keeping me broke. I simply had to earn more money or reduce expenses.

One day I picked up a copy of The Wall Street Journal. In the pages of that remarkable newspaper I found immediate help. An article on building supplies gave me ideas on remodeling my home and showed me how to save $900. Another article showed me a profit-making opportunity.

I sent for a Trial Subscription to The Journal. I heeded its warnings. I cashed in on the ideas it gave me. Articles on food and clothing helped me cut expenses. Articles on taxes guided me on what to do to keep my taxes down. Now I'm slowly forging ahead.

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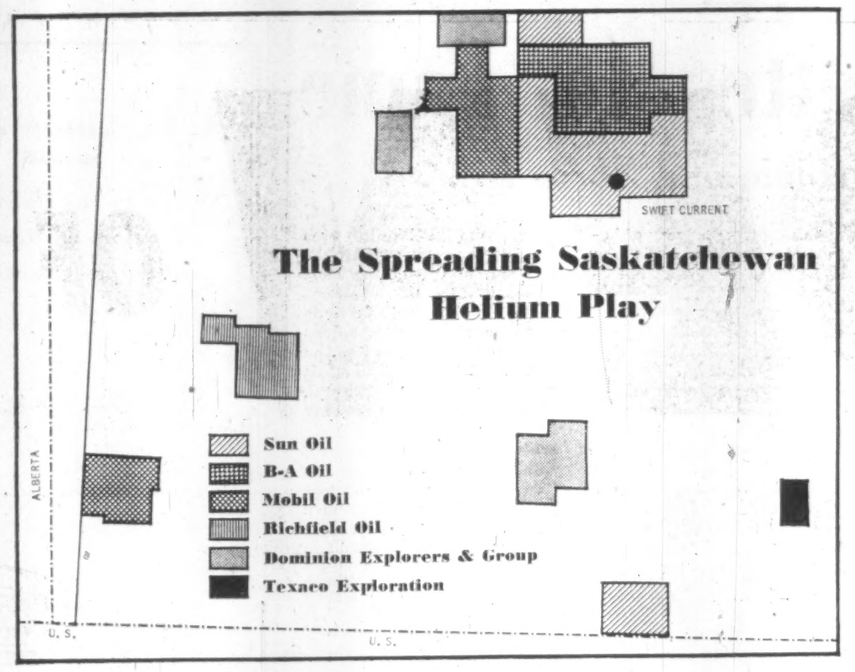
CFP-1-23

ANNOUNCEMENT

H. C. LAIRD

The appointment of H. C. Laird as general sales manager of Vendomatic Limited, Toronto, has been announced by Mr. Allan D. Baker, executive vice-president. Mr. Laird previously held the position of field sales manager. His promotion is part of an expansion program by Vendomatic. This company manufactures and sells automatic food vending machines in Canada.



Saskatchewan Helium Pops

(CONTINUED FROM P. 1)

ington buys the helium from gas producers and owns and operates the refrigeration units and storage vessels.

With rapidly growing defence needs, Washington recently announced plans for a major expansion in production from current 290 million cu. ft. a year to 600 million cu. ft. annual rate.

Canadian firms have their eyes on growing overseas markets.

If discovered in commercial quantities in Saskatchewan, the gas would probably be shipped to the Lakehead in special pressure vessels on flat cars.

From there, it could be sent to overseas points by ships.

Demand in Canada is quite small at the moment.

The high prices being paid for helium today—ranging from $17 to $21 mcf—permit fairly heavy production and transportation costs.

Even at a 2% recovery rate in natural gas—this is about what the Texas helium runs — this would represent a wellhead price for natural gas of 34c to 42c mcf.

Going rate for natural gas today in Western Canada ranges from 13½c mcf to 15c mcf.

Although B-A has maintained strict secrecy on helium concentration in its discovery well, reports are that it ran better than 2%.

The helium gas is recovered from natural gas in refrigeration plants located in the gasfields or on gas pipelines.

When all other gas components are refrigerated out in liquid form, only the helium gas remains. This must then be loaded into metal pressure vessels for transportation.

The Saskatchewan government permits are for three years. The first drilling for helium will probably start this summer.

The Outlook

(CONTINUED FROM P. 1)

falling short of earlier expectations, which were very large. If this situation persists, it would help the premium edge downward.

▸ **Interest rates and monetary conditions in both Canada and the U. S.** This is important because the premium is determined to a great extent by Canadian borrowing in the U. S. which, in turn, is largely determined by the relative cost and availability of loans in the two countries.

The higher the generally prevailing U. S. rate vis-a-vis our own, the less attractive the New York money market to those Canadian corporations, provinces and municipalities planning to sell bonds—and the fewer the U. S. dollars to be converted into Canadian.

With U. S. rates offering a smaller bargain than they did six months ago and with more room in the Canadian money market now that Ottawa's new cash needs are smaller, a greater number of Canadian firms and governments may do their borrowing at home—and take some of the upward pressure off the premium.

▸ **Corporate and government planners should watch for any repetition of the "special" inflows which helped push up the premium last year. U. S. Ford's** $150 million payment to Canadian shareholders in **Ford of Canada** accounted for a big chunk of last year's $500 million "direct" investment by the U. S. in Canada. It helped give 1959's premium a boost—and won't be repeated this year.

Another special inflow came last fall when Canadian interest rates and bond yields climbed considerably faster than those in the U. S. This attracted a few hundred million into Canada and helped keep the premium high. Now that the gap between U. S. and Canadian rates has closed, there is little chance of a recurrence.

One big question: If the necessary licenses to bring Canadian gas into the U. S. are granted in time to start pipeline construction, will enough U. S. money flow into Canada in 1960 to boost the premium?

▸ **The pace of Canadian business expansion will also have its effect in the determination of the exchange rate.** If business spending on new equipment advances sharply, so will imports and direct capital to finance them. Net result could be upward pressure on the premium. But if Canada's over-all growth stays on the moderate side, less U. S. money will be attracted and the premium may edge down.

▸ **Another factor influencing the premium will be the financial actions of a number of U. S. subsidiaries doing business in Canada.** A fair proportion of these firms appear to have refrained from returning dividends and/or capital to their U. S. parents even though the discount on the U. S. dollar was high.

If the premium begins to decline, these firms are likely to start repatriating money and this will help push the premium down further.

Offsetting this to some extent will be the sale of U. S. dollars bought by Canadian investors when the premium was high.

One member of the Toronto investment community summed up his views for FP by saying:

"Much depends on monetary policies in Canada and the U. S. But if interest rates in the two countries stay in line with each other—much as they are now—there's a chance that the premium may decline a little. Certainly the composition of capital inflows in 1959 suggests a smaller amount of U. S. investment in Canada this year and a weakening in the exchange rate."

If James E. Coyne, governor of the Bank of Canada, has his way, the premium on the Canadian dollar will be lower in coming years.

This week in Winnipeg he defined Canada's capital spending and the foreign borrowing it entails as excessive and inflationary. Future prosperity and Canada's ability to export depend, he declared, upon less rapid growth, less borrowing abroad. He criticized Canadian provinces and municipalities for borrowing in New York "which is a gamble on the exchange rate".

New Plant for New Fibre On Our Textiles Horizon

By ERIC RICHTER

A big new plant to manufacture a new synthetic fibre may appear on Canada's textile horizon.

The fibre is wool-like Darvan, a chemically unique nitril fibre discovered by **B. F. Goodrich Co.** of the U. S. several years ago. World production and sales rights to Darvan for textile uses were recently acquired from Goodrich by **Celanese Corp. of America.**

Harold Blanke, President of Celanese Corp. of America and chairman of the former **Canadian Chemical & Cellulose Co.,** said in New York recently annual world production ranging between 36 million and 40 million lb. of the new fibre was anticipated.

Darvan is to be imported immediately from the U. S. and distributed by **Chemcell Fibres Ltd.** — an associate of **Canadian Chemical Co.**—to build markets.

Douglas Keefe, Chemcell Fibres president and a vice-president of Canadian Chemical, told **FP** a Darvan plant would undoubtedly be built in Canada as soon as a sufficiently large market for the fibre was developed here.

While Keefe declined to give any further details, industry sources speculate that such a plant would cost well over $1 million.

Presumably it would be built by either Canadian Chemical Co. (which is controlled by Celanese Corp. of America) or by Chemcell Fibres.

In 1959 Canadian Chemical & Cellulose Co.—in which Celanese Corp. of America owned 82% equity interest—was dissolved and its holdings of shares in Canadian Chemical Co. and Columbia Cellulose Co. distributed to shareholders.

A new company — **Chemcell Ltd.** wholly-owned by Celanese Corp. of America was formed to assume the latter's interest in the two former Canadian Chemical & Cellulose subsidiaries.

Of different chemical composition than any other synthetic fibre, Darvan has significant potential in a variety of apparel end uses, both in woven and knitted fabrics, makers claim.

The fibre can be used 100% or in blends with wool, cotton or the other man-made fibres.

At present Darvan staple is being made in the U. S. in a plant at the Goodrich Development Centre, Avon Lake, Ohio. Goodrich will continue to operate the plant for Celanese until the latter can bring its own facilities into production.

Darvan was discovered by accident as a result of experiments initiated during World War II to produce a new type of tire cord.

In the course of their investigation, Goodrich researchers managed to produce a chemical called vinylidene dinitrile. Fibres derived from this chemical were found to have a distinctively soft luxurious feel.

While this obviously made them unsuitable for tire cord, it opened up interesting possibilities in the apparel field.

In addition, unlike wool, Darvan has little tendency to shrink.

Current U. S. price is $1.45 lb. compared with $1.36 lb. for Dacron, $1.18 for Acrilan, $1.30 for Nylon and $1.28 for Orlon.

You Have Until Feb. 29 To Arrange '59 Pension

This year, for the first time, taxpayers have an extra 60 days in which to start a registered retirement savings plan, deducting the payments from last year's income.

An amendment to section 79B of the Income Tax Act, passed at parliament's last session, provides that registered retirement savings plans may now be started during the calendar year or up to 60 days after the year-end—that is, to Feb. 29 this year.

Until this year, a taxpayer had to signify his intention of starting such a plan — by signing the necessary application—not later than Dec. 31, if the plan were to be considered in force during the year.

Payments made into the plan during the first 60 days of the new year, however, could be deducted from the previous year's taxable income.

Beginning this year, the decision to start the plan may also be taken during the first 60 days without losing the tax advantage.

Savings plans administrators describe the change as particularly important to professional people, who may be unable to form a clear picture of the year's earnings by Dec. 31.

SEVEN ISLAND PLANS

Seven Island Mining & Exploration Corp. plans further diamond drilling on its Algoma area iron prospect this year. Some surface drilling has been completed but results were inconclusive.

Faraday Uranium Doubles Earnings

Net profit of **Faraday Uranium Mines** almost doubled to $1,382,000 in 1959 (31c share) from $712,903 (16c share) in 1958, a preliminary report reveals.

At the year end, company had outstanding $3,999,500 of debentures after retiring $500,000 note and $2,600,500 of debentures.

Faraday will mine at the maximum possible rate over the remaining months of its tax-free period, or about 85,000 lb. to 90,000 lb. per month to end of April, 1960, A. W. Johnston, president, reports.

Output will then be cut back to 72,000 lb. per month which would carry production to July, 1962, unless more contracts are obtained to extend output beyond 1962.

ANNOUNCEMENT

IMPERIAL BANK DIRECTOR

SYDNEY HERMANT

Imperial Bank of Canada announces that at a recent meeting of the Board of Directors Mr. Sydney Hermant was elected a Director of the Bank. Mr. Hermant is President of Imperial Optical Company Ltd., and subsidiaries; President of The Board of Trade of Metropolitan Toronto; a member of the Senate of the University of Toronto and a member of The Board of Governors of Upper Canada College. Mr. Hermant is also a director of a number of Canadian Corporations.

TECHNICAL SESSION

The technical section of Canadian Pulp & Paper Association will hold its 46th annual meeting Jan. 26-29 in Queen Elizabeth Hotel, Montreal.

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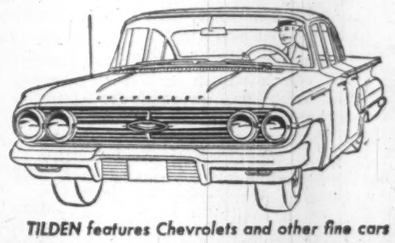

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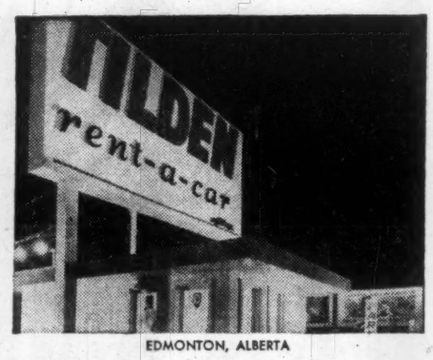

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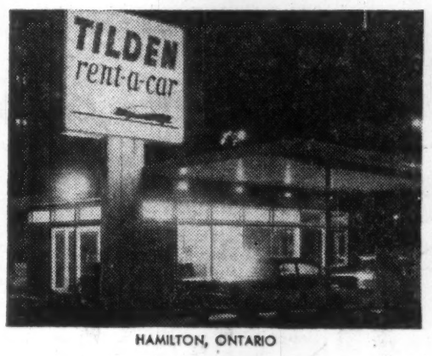

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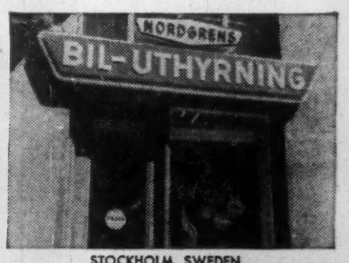

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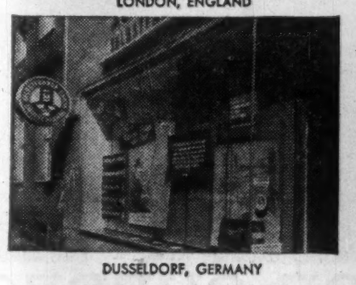

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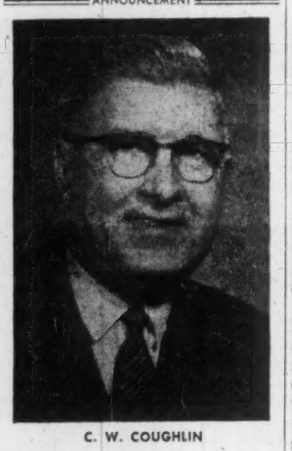

C. W. COUGHLIN

Mr. Robert H. Morse III, President of The Canadian Fairbanks-Morse Company Limited, announces the retirement of Mr. Cecil W. Coughlin, Vice President — Industrial Products after 46 years of service with the Company.

Starting as a clerk in the Montreal Branch in 1913, he was successively a salesman, Manager of the Ottawa, Vancouver and Montreal branches. He became a Vice President in 1953 and was elected to the Board of Directors in the same year. Mr. Coughlin will continue to serve as a Director of the Company.

We'll Need New Ships To Compete with U.S.

(CONTINUED FROM P. 1)

the Atlantic coast, away from the Great Lakes entirely?

The Canadian firms hope to be able to talk with government representatives soon.

General background of their discussion probably will centre on this point: How can the Canadian shipping and shipbuilding industries be given the support and assistance they need, in competition against subsidized or lower-cost industries in other countries?

Canadian shipping interests face one handicap in the fact that they have no ready-built mechanism for raising the capital required.

Only concession granted by the Canadian government is accelerated depreciation write-off of up to one third of the vessel's cost in one year.

By contrasts, ships engaged in international trade from most other countries come under government-sponsored financial schemes.

Since this ore movement is international in character, U. S. shipping companies can apply for government subsidies, which can make the competition very tough indeed for Canadians.

Right now, there seems to be some quiet flag-waving going on in the U. S., with the objective of sewing up the entire ore movement for U. S. ships.

Or, a lot of it could go down the Atlantic coast.

Big carriers — taking twice the cargo of the biggest laker — could take ore from Sept Iles to Philadelphia, Baltimore, or other ports close to steel furnaces.

Japanese or German shipyards could build them at a lower cost per ton than Canadian yards can produce the lakers.

Foreign bottoms might easily move in on the business — up the lakes or down the coast.

Impact of construction of even 20 of these ships in Canada can be seen from these facts:

▶ **Such a ship** would cost between $6½ million and $7 million to build.

It could be built in about a year if an existing design is followed, the yard has built a similar ship previously, and a berth at the shipyard is available.

▶ **Shipyards** at Halifax, Quebec City, Montreal, Port Weller, Collingwood and Port Arthur are ready to take on contracts.

At least half of the content of each ship would be Canadian steel, machinery and equipment.

▶ **Close to a million man-hours of work** is required for each vessel. And the ships can be built at less cost in Canada than in the U. S.

▶ **At current freight rates** of $2 per ton for hauling iron ore from the St. Lawrence to Lake Erie, each Canadian vessel in the trade would bring in $1 million or more in U. S. funds each year.

Each would pay a crew of about 35 men wages totaling nearly $150,000 for the season, and would spend an additional sum of close to $400,000 a season for operating expense (not including capital costs).

There are now approximately 20 Canadian ships capable of entering this trade on a competitive basis, with a couple more building.

But almost all of these are committed for existing business.

One modern ship, built to approximately the maximum dimensions for movement in the St. Lawrence Seaway and Welland Canal, can handle about 500,000 tons in a season.

Iron ore will move from three points to steel mills on the Great Lakes:

- **Port Cartier**, on the North Shore west of Sept Iles, Que. **Quebec Cartier Mining Co.**, a subsidiary of **United States Steel** expects to start shipping ore next year.
- **Sept Iles**, where ore shipment will be greatly accelerated by 1962 when **Pickands Mather** will have completed a railway connecting its Wabash Lake property with the **Quebec North Shore Railway**.
- **Port Arthur**, which will see accelerated ore shipments when **Caland Ore Co.**, an **Inland Steel** development, starts shipping from its Steep Rock area property, probably next year.

Exports of iron ore from Canada to the U. S. are now running at a rate of about 10 million tons annually.

The new developments are expected to quadruple this rate — rising gradually to 40 million tons a year.

Combines Branch Queries Supermarkets, Food Firms

(CONTINUED FROM P. 1)

to control sale of accessories at their gas outlets.

- **Selling** and pricing of new types of drugs.

The timing of the new questionnaire to supermarkets indicates that it does not result from the recommendations of the Royal Commission on Price Spreads, though its subject matter is similar.

The Price Spreads Commission suggested that the Combines staff should be "put in a position to extend enquiries into the buying and selling practices" of large food firms and it specified that arrangements between buyers and primary producers should be included.

In the questionnaire received by the industry, information is sought about the relations between the supermarkets, the manufacturers and processors of food and the wholesalers.

But the emphasis seems to be rather on the corporate and ownership relationships of various groups of retailers, both among themselves and with their suppliers.

The increase of concentration in the food marketing industry within the last 10 years was documented by the Royal Commission.

But it is the sort of trend that the Combines Investigation Branch normally follows for itself, and the decision to undertake this enquiry could easily have been taken quite apart from the Price Spreads Report. All the circumstances suggest that it was.

The procedure in enquiries of this nature is for the Combines staff under T. D. MacDonald (Director of Investigation and Research) to draw up a list of questions, or in this case a questionnaire form ready to be filled in.

This is sent to all the firms considered to be concerned, who are legally obliged to send sworn returns.

The information is then collated and studied in MacDonald's branch, and a report is made to the Restrictive Trade Practices Commission.

The Commission may collect any other evidence it wants and as a matter of practice it usually conducts private hearings at which interested parties can have their say.

It then reports to the Minister of Justice, who is bound to publish the report.

Section 42 enquiries are reviewed in the latest annual report from MacDonald under the heading "Research Projects".

The important difference between them and specific enquiries into alleged offences is that there are no "parties" to an enquiry under Section 42.

No complaints or allegations of wrong-doing are involved.

No prosecution has resulted from any section 42 enquiry.

There is no legal obstacle to prevent a subsequent specific investigation being based on facts revealed.

But it is known that the Combines investigators are very much averse to using them in this way.

They regard section 42 enquiries as research projects, not fishing expeditions on the theory that conditions and practices that may be sailing rather close to the wind of the Combines law, or which may be regarded as detrimental to the public interest, may be checked by the mere process of enquiry and publication.

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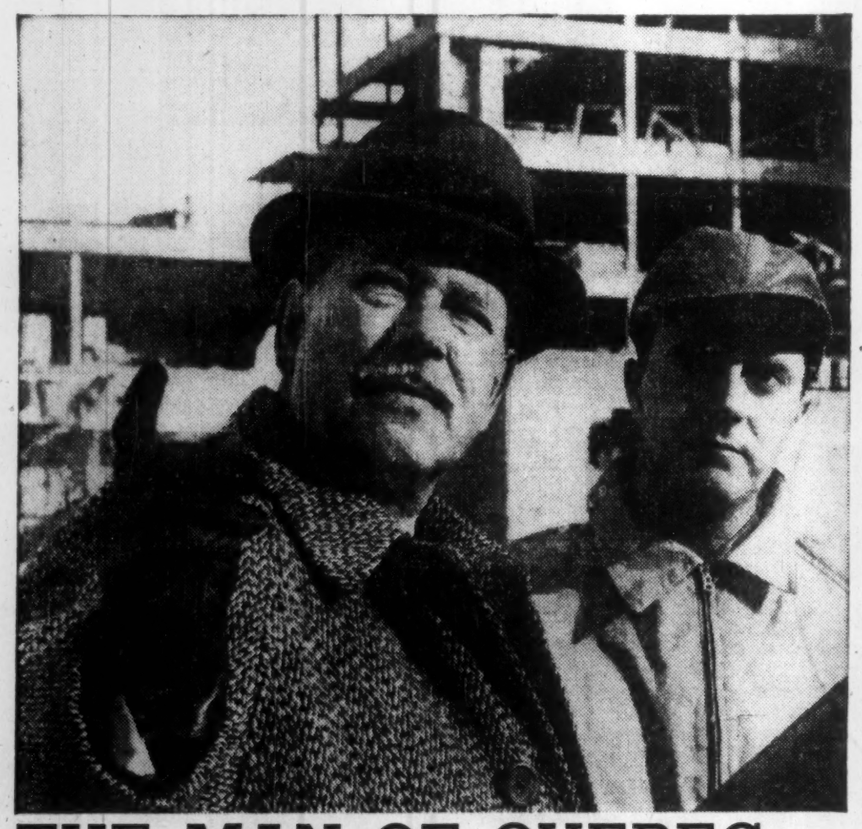

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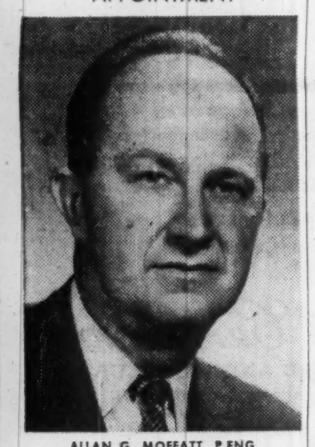
LIVESTOCK SALES
From Our Own Correspondent

SASKATOON—**Western Stockyards** sales in Saskatoon last year were $19.9 million, slightly under 1958. Deliveries: cattle and calves, 111,789 head; hogs, 33,318; sheep and lambs, 2,187.

ANNOUNCEMENT

CONSULTING FIRM APPOINTMENT



ALLAN G. MOFFATT, P.ENG.

Mr. E. H. Davis, President of Haddin, Davis & Brown (Manitoba) Limited, announces the appointment of Allan G. Moffatt, P.Eng., as a Director of the firm. Mr. Moffatt is a 1944 Civil Engineering graduate of the University of Toronto. He joined the Company and was appointed Manager in 1958.

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What's New

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YOU CAN CARRY your greenhouse around if it's made of polyethylene film. The quonset-shaped portable greenhouses come in two commercial sizes—one is 8 ft. wide, 3 ft. high and 5 ft. long, the other 11 ft. by 3½ ft. by 5 ft. — and weigh about 25 lb. A 1-in. air-space between two layers of film acts as insulation. Greenhouse permits three different field crops to be brought in as much as two weeks ahead of normal maturity in each growing season, maker says.

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NO DUST gathers on a smooth paint surface coated with a new water-like fluid. The coating fills in the microscopic pores of a seemingly smooth surface, producing a slickness which leaves virtually nothing for dirt to adhere to. It can be sprayed, brushed, roller-coated, mopped, or wiped on. It's been field tested for industrial maintenance, but is not yet available for the homeowner.

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TIRE PRESSURE can be read any time if you have a German-made gauge. It's screwed directly to the tire valve and left there permanently. The gauge is not removed even when washing the car. It is small, inconspicuous, and weighs under ½ oz., so that rebalancing the tires is not needed, the maker says.

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HI-FI HEARING AID offers a 98% greater range of reproduced and amplified sounds than is possible through present transistor hearing aids, maker says. It covers four octaves, unvoiced consonants such as "th", "f", "sh", and "h", yet weighs only 2 oz.

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STOP SQUINTING at your old-fashioned hard-to-read thermometer every time you want the right temperature, says Chicago firm. It has a pocket-watch design thermometer that can be clearly read from across a room. It's encased in a simulated old-fashioned pocket watch case with a 24-in. matching chain. It measures 7½ in. wide, 9½ in. high; records temperatures from -30 deg. to 120 deg. F.

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METAL SORTER can discriminate between different metals that look alike without costly, time-consuming and complicated testing. It differentiates between inconel and stainless steel, zircaloy-2 and zironcium, and zircaloy-2 and hafnium in the twinkling of an eye. You rub a file against the metal and this generates a tiny current which is slightly different for each metal. The machine detects the difference.

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PORTABLE Humidifier counteracts the air-drying effect of central heating in buildings. It works electrically, emitting a very fine moisture dispersion, which is said to be non-wetting, into the atmosphere. Weight: 10 lb.

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NEW LITERATURE: Case histories on Verifax Copier applications in business and industry are presented in 16-page brochure available from **Canadian Kodak Sales Ltd.**, Toronto . . . **Canadian Research Institute**, Toronto, has booklet on West German line of precision bench-type portable electrical measuring instruments . . . Leaflet describes series of electronic high-vacuum pumps available from **Ultek Corp.**, Palo Alto, Calif. . . . Catalogue on Breidert gravity and power ventilators available from **Shanahan's Ltd.**, Vancouver . . . Four-page brochure describes Aerospace Marketing Handbook of **Defense Marketing Services, Inc.**, Los Angeles, Calif.

Sees Saskatchewan on Verge Of Industrial Development

From Our Own Correspondent

REGINA — Saskatchewan seems on the threshold of an important period of industrial development in the view of H. A. Purdy, manager of Saskatchewan Chamber of Commerce.

Industries established in the province during the past five years should attract further industries, he suggests.

He thinks, too, that construction of the South Saskatchewan dam is good reason to assume that more industry will be started in the dam area during the next decade or so.

He warns, however, that "when attempting to speculate on the economic prospects for Saskatchewan for the 1960s some reservations must be kept in mind.

"There are the external factors affecting our ability to market exportable agricultural products, particularly wheat, in the world market.

"For instance, we do not know what influences the development of the European Common Market or the formation of the Outer Seven will have on our export prospects.

"Nor is the possible influence of Russian competition in world markets yet manifest.

"Tariff and trade policies at the national level, provincial policies and many other factors may have unforeseen effects."

It seems reasonable to predict, however, he believes, that the recovery from the mild recession of 1957-58 should continue into the 1960s.

Regina Plant For Int'l Paints

Manufacture of a complete line of industrial and household paints is to start in Saskatchewan this spring at a new plant to be established in the Regina area.

International Paints (Canada) Ltd., Montreal, will build its first Prairie branch plant in Saskatchewan.

The plant — to cost around $300,000—will be built on a five-acre site northwest of the city limits.

Contract for the factory has been awarded to **Steelcon Ltd.**, Regina.

Working area of plant will cover 7,000 sq. ft. Potential daily capacity will be 200,000 gal.

The Regina plant will be part of International's worldwide paint organization. Headquarters of the organization is in England.

LEGISLATURE LOOK-AHEAD

Talk Election Session In New Brunswick Now

From Our Own Correspondent

FREDERICTON, N.B.,—With a provincial election coming up this year the Liberal opposition can be counted on to stage an all-out attack on the government at the 1960 session of the Legislature.

Local political observers are talking a June election but a "safer bet" would be late summer or early fall.

Opposition leader L. J. Robichaud, 34-year-old Kent County Acadian, has already declared his party's opposition to the Flemming administration's premium plan for financing the new hospital insurance scheme.

Liberals favor financing the province's share out of provincial revenues.

Among other things, he likely will claim the government's winter-work program aimed at easing unemployment does not go far enough.

Considerable doubt is expressed in political circles whether Mr. Robichaud can line-up his followers in the House behind his claim that, if elected, he will straighten out" the province's liquor situation.

It is understood there is strong opposition in the Liberal-held counties to widening the 30-year-old Liquor Control Act regulations or opening new outlets.

For the most part the fourth session of New Brunswick's 43rd Legislature, which opens here on February. 18, is expected to be a routine one with little major public legislation being introduced, and Premier Hugh John Flemming's administration "standing pat" on its past record.

However, Mr. Flemming, in recent public speeches, has given strong hints the government will bring down legislation providing for additional financial aid to the province's municipalities.

The legislation will be aimed at assisting the municipal governments in meeting their indigent patient costs under the N. B. Hospital Care Plan.

It may also table the E. C. Atkinson and Prof. W. Y. Smith provincial commissions' reports on base metal and coal mining, respectively, during the session.

The province's tax structure is being maintained at its present level, with no new taxes anticipated. Provincial revenues and expenditures are expected to run about the same as last year.

For the 1959-60 fiscal year ending Mar. 31, Provincial Secretary-Treasurer D. D. Patterson budgeted $89,552,836 to meet both revenue and capital accounts.

First elected in 1952, Premier Flemming's party was re-elected to a second term in the 1956 provincial election by a 37-15 majority, and can go until July, 1961, when the life of the present Legislature legally expires.

Present party standing Progressive Conservatives 33, Liberals 12, and Independent 1. There are six vacancies.

There have been no cabinet changes in more than a year.

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POST TRAVEL BUREAU

Where to go – how to go – where to stay

Mexico Lures With Scenery, Varied People

By KENNETH W. LINES

Going south to Mexico and leaving the tough Canadian winter behind, if only for a couple of weeks, is an exciting experience.

Mexico has two tremendous attractions: a vast range of scenery and some of the nicest people in the world with a background of widely differing cultures.

There is the cosmopolitan mixture of Mexico City itself, ranging from the ancient glass blowers and leather craftsmen to the fashionable night clubs.

To the west is the modern coast resort of Acapulco where you have the choice of being either a North American at home or trying some very well-run Mexican hotels.

To the east there is not the same appreciation of a tourist's needs and while you do run into luxury hotels there are some equally charming Mexican ones where you are welcomed with open arms.

On a trip from Vera Cruz back to Mexico City over the mountains there is a hotel at Teziutlan where everything is spotless and the traveler and his wife can put up in a room, with separate bathroom, for two dollars a night.

The food is equally good and inexpensive.

In both these directions, east and west, the scenery runs from barren lava rock with an immense variety of cacti to the tropical areas and their profusion of bananas, bougainvillea and orchids.

But in winter the temperature is always pleasant, at whatever level, and not humid.

Mexico City is 7,000 ft. above sea level and although the sun shines and it does not rain it may be a little cooler than expected.

Top coats are useful in December and January, from then until May a light suit and from May until October you can expect rain for a short time in the late afternoon.

As in any country you pay for what you get in Mexico but usually you get it a lot cheaper than elsewhere in North America.

Here's one example:

The **Hotel Geneve** in Mexico City accommodated my wife and me in a big room with separate beds and 12-year-old daughter in an alcove round the corner.

Off these rooms was a separate bathroom.

Total cost for the three for one night was 90 pesos or $7.25 U. S. (slightly less Canadian).

The room service was excellent.

No sooner had the phone been put down than a man was at the door.

Laundry was also fast although, surprisingly, nearly as expensive as in Canada.

This hotel, with 450 rooms, was of comparable standard to Toronto's **Royal York.**

In the so-called luxury hotels you can pay a minimum of $10 a night for a double room while the **Continental Hilton** has a presidential suite at $100 a day and a lesser suite at $66.

However if you are looking for usual North American comfort, around $6 a night for a double room in Mexico City is about right.

All these hotels cater to English-speaking guests, serve ice automatically with drinks and run their own tour departments.

These offer packaged deals, such as one that takes in the floating gardens of Xochimilco and a bullfight on Sunday for $13.

They will take you to the famous pyramids, just outside Mexico City for $6.60 and visit, on the way back, the Shrine of Guadalupe and the Monastery of Acolman.

Taxis in Mexico City are cheap, and of quite modern vintage.

A trip in a 1958 Chevrolet of about 10 mi., tied up in traffic jams, across the city lasted 45 min. and came to 75c.

Tipping is not usual but an extra 20c in this case was considered not unreasonable.

From the east end of Toronto to Malton airport costs $7 by taxi. A similar trip to the Mexico City airport worked out at precisely $1.

If you do hire a car in Mexico there are small, imported vehicles available at $35 a week plus 5c a kilometre or about 8c mi.

Gas is included, but it is certainly cheap enough.

The equivalent price in Canada would be 27c gal. for regular gas and 32c gal. for premium.

Gas is sold by the litre and there are .22 litres to the imperial gallon.

Hiring bigger North American cars costs $50 a week.

Driving in Mexico City, in spite of warnings from friends, is not particularly difficult.

There are two main problems:

No one stays in a particular lane for more than 50 yd.

There are practically no left turns allowed.

Add to this the fact that almost all streets are one way and you can see that a trip from one side of the city to the other requires considerable planning.

Eating in Mexico is cosmopolitan.

Restaurants range from Chinese to German — all quite authentic.

In a typically Mexican restaurant, **El Refugio,** you can get a four-course meal for just under $2 while at **El Taquito,** where the bullfight fans hang out, it drops to $1.

However, don't expect wine with meals.

The Mexican invariably drinks a heavy beer.

Mexican wines are not rated highly although you can, of course, get all the wines you want at **Delmonico's** (U. S.), **Ambassadeurs** (French) or **Mauna Loa** (South Seas).

At these restaurants you will pay around $5 for a complete dinner and cocktail.

There's a vast amount to see and do just in and around Mexico City — the pyramids, the university, the markets, the national museum, the parks, the handicraft factories and out of town trips to Cuernavaca, Taxco, Puebla and Toluca.

You can also take round trips to Acapulco and farther away, with four and five nights out of town.

But however long you stay there will not be enough time to do everything in Mexico — and do it at a price that will still leave money in your pocket at the end of the holiday.

The driver of a car with Ontario plates in Mexico said it had taken him and his companion five days driving of 8 hr. a day from Toronto.

If you fly it takes about 8½ hr. and the tourist return fare is $198.

A FAVORITE Sunday pastime of Mexicans is to take decorated punts on the waterways of the floating gardens of Xochimilco, about an hour from Mexico City. On other punts are flower sellers, photographers, Mariachi bands, and women selling hot food from pots over charcoal burners.

There's Real Lamptrimmer Even in Modern Ocean Liner

MONTREAL (Staff)—Despite vast quantities of atomic-age equipment built into modern ocean liners, these big vessels still bear a few marks of the days of sail.

On Cunard liners, for example, at least one lamptrimmer will be found on each ship's crew list.

This is in spite of the fact that giant luxury liners such as the Queen Elizabeth and Queen Mary have massive electric generating plants which produce enough power to supply the needs of a substantial community.

Electronic equipment notwithstanding, these big liners still carry a full complement of oil lamps that can be used as emergency navigation lights.

Cleaning and refueling the lamps and trimming their wicks —still a task that must be performed with great regularity and care even though the lamps are seldom used—is the lamptrimmer's chief duty.

A century ago a lamptrimmer spent most of his time tending the numerous lamps carried on a ship.

Today with far fewer lamps to maintain, he's assigned collateral duties ranging from assisting the ship's storekeeper to caring for prize animals shipped as cargo.

Lamptrimmer on the Parthia, for example, once found himself cast in the role of midwife to a Welsh pony which foaled on a crossing from Liverpool to New York.

The patient, by the way, was living happily on a Pennsylvania farm at last report.

Manitoba Marking Boundary, Taking No Chances on Error

From Our Own Correspondent

WINNIPEG — If anyone stumbles on another big mineral deposit in the remote north, Manitoba government is taking steps to make sure there will be no argument whether it is located in the province or not.

A federal-provincial project in which the provincial surveys branch and the Canadian Army are joining will undertake to mark between now and spring break-up the remaining portion of the boundary between Manitoba and the Northwest Territories.

Bronze posts set in rock will mark Manitoba's boundary line.

The line runs from the northeast corner of Saskatchewan along the 60th parallel of latitude due east 255 mi. to Hudson Bay.

Its eastern terminus is about 125 mi. north of Churchill.

Last year survey parties marked the westerly 109 mi. and the balance of 146 mi. is to be marked this winter.

Survey crews have left Churchill.

The crews are led by a New Zealander, A. C. Roberts, a licensed surveyor who trained with the RCAF in Manitoba in World War II.

After the war he returned to New Zealand to complete his survey course and came back to Manitoba. He was in charge of the group that marked the first part of the line last winter.

The crews move by tractor train. From the end of January they will be on their own although in constant radio communication with Winnipeg via Churchill.

The 109 mi. marked last winter was through territory of stunted tree growth. The 146 mi. to be marked this winter is nearly all open tundra.

SURGEONS from around the world will meet in Italy and Israel this summer. Following the 12 Biennial International Congress of the International College of Surgeons to be held in Rome, May 15-18, many of the surgeons will go on to Tel Aviv and Jerusalem for another conference, May 21-23.

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* * *

NEW AIR SERVICE in the West Indies is offered by **Leeward Island Air Transport** based at Seawall Airport, Barbados. With a fleet of two Herons (14 passengers), one Bonanza (six passengers) and one Piper Attache (three passengers), present schedule calls for twice-weekly island-hopping trips to surrounding islands. LIAT may soon be declared the "national" airline of the West Indies Federation. Private stock is held in the new line, but **BWIA** is the majority shareholder.

* * *

MARRAKESH, new 209-room hotel at Jamaica's fashionable north shore resort of Ocho Rios will open Jan. 26. For information and reservations contact **ROBT. REID ASSOCIATES, INC.,** with offices in Toronto and Montreal.

* * *

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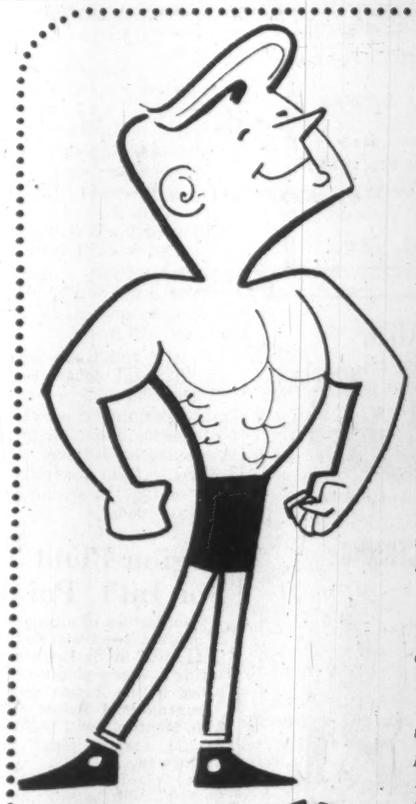

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ANNOUNCEMENT

ELECTED PRESIDENT

E. T. SIMMONS

E. T. Simmons, D.S.O., D.S.C., was elected President of The Distillers Company (Canada) Limited at a recent meeting of the Board of Directors. Since 1956, Mr. Simmons has been Managing Director of the company, which is the Canadian subsidiary of The Distillers Company, Edinburgh, Scotland and he will continue to act in that capacity while assuming his new post as President. Decorated for his service as a Commander in the Royal Canadian Navy in both the Atlantic and Mediterranean theatres of operation in World War II, Mr. Simmons is a native of British Columbia. He joined The Distillers Company (Canada) Limited in 1948 and in 1952 was made Western Director. Upon his appointment as Managing Director in 1956, he moved to Toronto.

News and views on the British securities markets, specially written for FP by one of London's distinguished financial writers.

U.K. Plane Makers Merging Into Three Major Groupings

A LONDONER'S FINANCIAL NOTEBOOK

ALTHOUGH the undertone remains firm, markets have been restrained by the recent setback on Wall St. and by the trend in many countries toward higher interest rates.

The business situation remains good, however, and no one doubts that there are many potential buyers, both large and small, waiting in the wings.

Meanwhile, the main pattern of the new and compact U. K. aircraft industry has now been settled.

Three major groups have emerged. Two of them, the **Hawker-de Havilland — Blackburn-Folland** merger, and the **English Electric-Vickers-Bristol** combine, will build both civil and military aircraft, and guided missiles.

English Electric and Vickers are merging their aircraft divisions and are taking in the aircraft side of the Bristol group. **Hunting Aircraft** is also thinking of joining this new combine.

Bristol is selling its helicopter interests for £3 million in cash and shares to **Westland**, which last year acquired **Saunders-Roe.**

Still unsettled is the future of Fairey and Handley Page, though it is strongly rumored in London that Fairey may shunt its helicopter activities into Westland.

Rolls-Royce is expected to carry on independently as an aero engine maker. **D. Napier & Son,** as an aero-engine manufacturer, will remain outside the new set-up, even though it is a member of the English Electric group.

U. K. Stocks

(Supplied by Wisener, Mackellar & Co., Toronto)

	Recent Bid	Ask	Jan. 4 Bid
	$	$	$
Bowater Paper	9¼	10	10¼
British Petroleum	7¾	8	8¾
Courtaulds	8	8½	8½
Daily Mirror	3¾	4	3.90
Ford of England	14⅜	14⅞	14¾
Hawker Siddeley	4⅛	4½	4
Hudson's Bay Co.	29⅜	29⅞	30
Imperial Chemical	7.85	8.05	8.10
Stewarts & Lloyds	7¼	7¾	8⅛

Full details have now been posted of the offers by Hawker Siddeley for the shares of de Havilland and Blackburn. Acceptance date is Feb. 4 and a favorable response appears certain.

Profits before tax of de Havilland for the year to Sept. 30 last are shown to have recovered to £2.2 million from £384,000 in 1957-58, and profits this year are being well maintained.

Although profits of the Canadian companies will be lower this year, Hawker's U K. earnings are also well up to last year's level. The board expect at least to maintain the 10% dividend rate after the mergers, in respect of the year to July 31 next.

Commenting on the offers at Hawker's annual meeting, Chairman Sir Thomas Sopwith said the group would gain a predominant position in both the civil and military fields on this side of the Atlantic.

At present, about 70% of Hawker's assets are in the industrial divisions and 30% in aircraft. After the takeovers, the industrial side will still be the larger.

Hawker's Canadian interests include **A. V. Roe Canada,** which in turn controls **Dominion Steel & Coal Corp.** Sir Thomas said that in spite of recent setbacks their confidence in these enterprises was unimpaired.

* * *

At the annual meeting of **Tate & Lyle,** the sugar refiners, chairman Sir Ian Lyle reviewed the company's recent purchase of a controlling stake in **Canada & Dominion Sugar.**

He said that judged by the volume of acceptances the offer was an outstanding success, although there was strong opposition from an influential section of shareholders.

"At the reduced rate of dividend of 15c a quarter, compared with 30c last year, the price paid of $25 a share yields only 2.4% and on this basis must appear generous.

"There does not appear to be an early prospect of better dividends; indeed, I envisage a very depressing picture at the end of the financial year in March."

There were signs, however, that next year would show an improvement and he was sure the more distant future held prospects of great things.

It was not proposed to alter the present structure of the Canada & Dominion board and the company would remain essentially Canadian in character.

But J. O. Whitmee, a senior Tate & Lyle director, is going to Canada. Sir Ian said he hoped he would take up an executive position with Canada & Dominion Sugar in the near future.

Tate & Lyle paid more than £6 million for its Canada & Dominion shares, financed temporarily from bank borrowings. To fund the greater part of these borrowings, it is raising about £5 million by a public issue of debentures.

* * *

Continuing its policy of diversification, the giant **Courtaulds** group is making a £16 million share exchange offer for **Pinchin Johnson & Associates,** a leading U. K. firm of paint manufacturers.

The Pinchin Johnson directors approve the terms and are recommending acceptance. As in other Courtaulds take-overs, the price offered is well above recent market levels.

Courtaulds already has a paint subsidiary in **Cellon,** of Kingston - on - Thames, and last month it signed a "know how" agreement with the U. S. **Glidden Co.**

Acquisition of Pinchin Johnson would make it one of the two largest paint manufacturers in the U. K., the other being Imperial Chemical Industries.

Reflecting the recent upturn in the synthetic fibres industry, Courtaulds expect to pay a total dividend in respect of the year to March 31 of not less than 12½%, compared with 9 2/3% last time.

Festival Season Will Be Lively

The coming Stratford Festival season to be held at Stratford, Ont., June 27 to Sept. 17, promises to be a lively one, according to preliminary program and casting announcements.

Three Shakespeare plays will be performed—Romeo and Juliet, King John and A Midsummer Night's Dream. Stars: Julie Harris, Bruno Gerussi, Douglas Rain, Kate Reid, Tony van Bridge and Max Helpmann.

In the music section, soloists to perform with the National Festival Orchestra include pianist Glenn Gould, violinist Oscar Shumsky, cellist Leonard Rose and others.

Gilbert and Sullivan's HMS Pinafore will be directed by Tyrone Guthrie with Louis Applebaum as conductor.

Other special events scheduled include an International Conference of Composers (sponsored by the Canadian League of Composers) and International Film Festival.

Major exhibitions: Paintings by leading Canadian west coast artists and a "Panorama of the Western Canadian Indian."

NEW LUMINAIRE

Canadian Westinghouse has introduced a new Canadian designed mercury-vapor luminaire for residential and suburban lighting. The reflector provides maximum efficiency of light control from 175 or 250-watt lamps.

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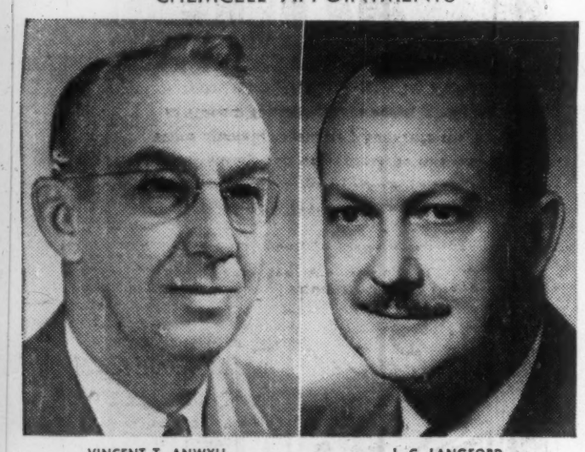
ANNOUNCEMENT

CHEMCELL APPOINTMENTS



VINCENT T. ANWYLL J. C. LANGFORD

The appointment of Vincent T. Anwyll as vice-president and general manager, Canadian Chemical Company, Limited has been announced by Robinson Ord, president. Mr. Anwyll became a vice-president in July 1958. Joining the company in 1951 when construction of the Edmonton plant was started, he was plant manager until his move to head office in 1958.

At the same time announcement was made of the appointment of J. C. Langford as a vice-president. Mr. Langford, plant manager at Edmonton, continues in this position.

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SAXONIA	JAN. 22	JAN. 23	COBH, HAVRE, LONDON
CARINTHIA	JAN. 29	JAN. 30	COBH, LIVERPOOL
QUEEN MARY	FEB. 3	—	CHERBOURG, SOUTHAMPTON
IVERNIA	FEB. 4	FEB. 5	HAVRE, LONDON
SYLVANIA	FEB. 11	FEB. 12	COBH, LIVERPOOL
QUEEN MARY	FEB. 18	—	CHERBOURG, SOUTHAMPTON
SAXONIA	FEB. 18	FEB. 19	HAVRE, LONDON

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Award $5 Million New Public Works

Construction contracts totaling $5,302,636 were awarded by the Federal Department of Public Works in December, 1959.

Amount for new works in building construction and harbors and rivers engineering was $4,530,386; for repairs and maintenance of existing structures $646,930; and for dredging $125,320.

Here are the major contracts:

Nova Scotia

Chegoggin Point — repairs to breakwater — **L. E. Powell & Co.,** Halifax ..... $54,447.

Mulgrave — wharf — **F. W. Digdon & Sons Ltd.,** Mulgrave .. $91,015

Parrsboro — reconstruction of wharf — **Colin R. MacDonald Ltd.,** Antigonish, N.S. ..... $170,211.

Pictou — reconstruction of quay wall — **T. C. Gorman (Nova Scotia) Ltd.,** Halifax ..... $220,971.

Westport — extension and reconstruction of wharf — **R. A. Douglas Ltd.,** New Glasgow, N.S. .. $162,995.

New Brunswick

Blackville — post office and fisheries building — **Coronet Paving Ltd.,** Andover ..... $19,995.

Dorchester — post office building — **MacPherson Builders Ltd.,** Moncton ..... $18,600.

Quebec

Actonvale — federal building — **Eugene Marcoux Inc.,** Sherbrooke ..... $49,300.

Macamic — post office building — **Roger & Philippe Bergeron Ltée.,** Macamic, Que. ..... $19,995.

Ste. Anne de Bellevue — laundry building at Ste. Anne's Hospital for Department of Veterans Affairs — **Vermont Construction Inc.,** Montreal ..... $374,905.

Sawyerville — post office building — **Albert Morin,** Sherbrooke $16,500.

Stanstead — detachment quarters for Rock Island detachment, RCMP — **Williams Construction Co.,** Sherbrooke ..... $39,726.

Ontario

Lakehead — improvements to harbour (stage 4) — **Speckert-Morris Ltd.,** Markham, Ont. ..... $202,910.

Lanark — post office building — **Howard S. Clark,** Smiths Falls, Ont. ..... $19,376.

Moose Factory — three double residences for Department of National Health and Welfare—**Pulsifer Construction Ltd.,** Kirkland Lake, Ont. ..... $119,950.

North Gower — post office building — **Howard S. Clark,** Smiths Falls, Ont. ..... $18,759.

Ottawa — cafeteria on Riverside Dr. — **George A. Crain & Sons Ltd.,** Ottawa ..... $604,150.

Toronto Island Airport — extension to runway (stage 3) — **Canadian Dredge & Dock Co.,** Toronto ..... $490,117.

Manitoba

Dominion City—post office building — **Steinbach Lumber Yards,** Steinbach, Man. ..... $13,994.

Inglis — post office building — **George A. Goulsbra,** Benito, Man. ..... $18,035.

Miami — post office building — **Arnold George Andrews, Lyle Charles Andrews,** Miami, Man. ..... $15,881.

Morris — detachment quarters for RCMP — **A. W. Peterson Construction Co.,** St. Boniface, Man. $46,900.

Sandy Bay — triplex residence at Dauphin Agency for Department of Citizenship and Immigration — **Benjamin F. Klassen,** Winnipeg ..... $45,360.

Saskatchewan

Muscowequan — four-bedroom staff residence, and at Gordon, Sask. — residential school, warehouse and three-bedroom staff residence for Department of Citizenship and Immigration — **Skow Construction Ltd.,** Weyburn, Sask. ..... $59,463.

Perdue — post office building — **C. M. Miners Construction Co.,** Saskatoon ..... $21,100.

Rouleau — post office building — **Weyburn Builders & Supplies Ltd.,** Weyburn, Sask. ..... $15,980.

Sheho — post office building — **Matheson Bros. Ltd.,** Yorkton, Sask. ..... $20,740.

Shellbrook — detachment quarters for RCMP — **C .M. Miners Construction Co.,** Saskatoon $42,800

Alberta

Alexis — two-bedroom bungalow and addition and alterations to two-classroom day school at Edmonton Agency for Department of Citizenship and Immigration — **Dell Construction Ltd.,** Barrhead, Alta. ..... $74,068.

Alix — post office building — **Robert Holzer,** Edmonton .. $14,960.

Beiseker — detachment quarters for RCMP — **Poole Construction Co.,** Calgary ..... $36,946.

Big Valley — post office building — **G. H. Roberts Construction Ltd.,** Stettler, Alta. ..... $15,432.

Didsbury — federal building — **Bird Construction Co., Calgary** ..... $45,874.

Edmonton — Unemployment Insurance Commission building — **Christensen MacDonald Ltd.,** Edmonton ..... $546,817.

British Columbia

Lillooet — detachment quarters for RCMP — **Basarab Construction Co.,** Vancouver ..... $44,322.

Nakusp — post office building — **Mackie & Hooper Construction Co.,** Vernon ..... $36,560.

Port Alberni — reconstruction of assembly wharf — **Fraser River Pile Driving Co.,** New Westminster ..... $818,742.

Vancouver — alterations to old customs warehouse building—**E. H. Shockley & Son Ltd.,** Vancouver ..... $44,637.

Yukon

Whitehorse, Y.T. — federal housing and four-unit apartment building — **Dawson & Hall Ltd.,** Vancouver ..... $276,578.

DREDGING CONTRACT

Wood Islands, P.E.I. — **The J. P. Porter Co.,** Montreal ..... $125,320.

NEW HEAD OFFICE

General Dynamics Corp., its Montreal subsidiary, **Canadair Ltd.,** and other subsidiaries, will move their executive headquarters to six floors in the Rockefeller Centre building in New York City on Sept. 1.

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Comfortable all-Tourist service, $241 round trip. No change of plane.

Barbados
Through service, $306 Tourist round trip. Also Super Constellation First Class service from Jan. 31st.

Trinidad
No change of plane from Toronto, $325 Tourist round trip. Also Super Constellation luxury service from Jan. 31st.

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European Roundup

NEWS FROM THE BUSINESS CAPITALS OF EUROPE...

By ERNEST WAENGLER

IN THE FIRST quarter of 1960, West European industrial production will be 8% higher than the corresponding quarter of 1959.

This forecast was recently made by an ECM commission which felt that heavy and mechanical industries in particular will increase their growth rate which, in the past year, has been slightly behind the general industrial expansion.

The automobile industry is expected to increase its production by 10%-12%.

In the last quarter of 1959 its increase was 13% but forecasters believe this rate cannot be maintained because of increased competition in foreign markets and slowing demand at home.

* * *

Two of Canada's chief export commodities to Continental Europe, aluminum and copper, may run into increased competition before long.

Norway, which increased its aluminum production by 25% in 1958 and another 24% in the first half of 1959, is planning a further expansion which will bring total capacity to 215,000 tons by 1965.

Norwegian aluminum is chiefly exported to the U. K., the U. S., West Germany and Sweden.

Lately China and Poland have been added as important export markets.

Sweden has just announced an increase in copper production from 35,000 to 40,000 tons per year.

In the first nine months of 1959, Canada exported $9.7 million worth of primary aluminum to Germany, $1.7 million to Sweden and $200,000 to Norway.

Our biggest copper customers were France ($5 million) and Germany ($4.2 million).

If Western Europe's base metal consumption continues to increase at last year's rate, demand for the Canadian product seems assured, but a slowdown in the growth rate could make the impact of Scandinavian competition keenly felt.

* * *

The government of Spain has just announced the conditions under which foreigners can buy shares in Spanish enterprises up to 50% of the total capital.

Funds must be brought into Spain in the foreign currency and exchanged for pesetas through authorized banks.

Dividends of up to 6% of the investment may be taken out of Spain through the same channels.

Spain's drive for increased foreign investment is beginning to show some signs of success. **Monsanto Chemical** has agreed to participate with $750,000 in the foundation of a new chemical firm, **Actorgan S.A.**, in Barcelona.

In addition to its capital participation, Monsanto is granting the new firm a credit of $1.8 million.

West Germany's **Krupp** concern is said to have promised a $9 million credit to a Spanish steel company, **Altos Hornos de Vizcaya**, to build a modern steel plant with an annual capacity of 360,000 tons.

Canadian interest in these developments lies mainly in the fact that a more liberal Spanish attitude toward foreign investors may conceivably improve chances of recovering some of the loss incurred when Canadian-owned **Barcelona Traction Co.**'s properties were seized and sold at auction in 1952 (**FP**, Nov. 21, Dec. 26, 1959).

* * *

As a price for its participation in the European Free Trade Area, Norway has demanded duty-free import of Norwegian canned fish and frozen meat into the U. K.

Agreement has now been reached with regard to canned fish.

This may well create serious competition for Canadian canned fish exports to the U. K., which, in the first nine months of last year, amounted to $9.8 million.

* * *

Denationalization has become an important source of revenue to the West German government.

Treasury officials in Bonn estimate that, in 1960, the government will make more than $20 million on the sale of state-owned enterprises to private investors.

The amount includes $8 million worth of real estate put up for private sale this year.

* * *

Recent German measures to stimulate capital exports to underdeveloped countries may further reduce the influx of German investments into Canada.

The Bonn government has set aside 4,000 million mark (almost $1,000 million) as a fund to insure German investors in foreign countries against "political risks".

The insurance only covers losses of "true investors" and not those arising from current transactions.

Investments are insurable up to 80% and to a period of 10 years, in exceptional cases 15 years.

The insured pays a premium of 1% to 1½% of the maximum amount guaranteed.

It is believed that, as a result of the guarantee, a larger share of German investments will go to riskier but more profitable projects in Africa and Asia.

This would reduce the availability of funds for investment in "safe" countries like Canada.

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ANNOUNCEMENT

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Mr. George D. Mead, President of the Glens Falls Insurance Company of Glens Falls, New York, is pleased to announce the election of Mr. M. Wallace McCutcheon, Q.C., to the Board of Directors of the Company. Mr. McCutcheon is Chairman of the Board of the National Life Assurance Company of Canada and an officer and director of several other Canadian corporations.

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ONTARIO DEPARTMENT OF PLANNING AND DEVELOPMENT

Central Mortgage and Housing Corporation and the Ontario Department of Planning and Development invite proposals for the construction, operation and maintenance of a small commercial centre, comprising ground level shops with basement facilities and business and professional offices above.

The commercial centre will be located on a suitable site within the boundaries of the Regent Park South Rental Housing Project, in the area bounded by Dundas, River, Shuter and Regent Streets in the City of Toronto. The centre is intended primarily to serve the local needs of the residents of the project.

Central Mortgage and Housing Corporation will enter into a long term leasehold agreement with the Developer for the lands required for the commercial centre. The developer will be required to construct on the lands a building and related works in accordance with plans and specifications provided by Central Mortgage and Housing Corporation.

Plans, specifications and form of proposal documents required can be obtained at the address shown below and are available for inspection there and at the Toronto Builders' Exchange.

A deposit of $100.00 is required for each set of plans, specifications and documents. This deposit is forfeited if plans, specifications and documents are not returned to the address shown below, intact and in good conditions, on or before the tenth day following the last date for receiving proposals as shown below.

Central Mortgage and Housing Corporation and the Ontario Department of Planning and Development shall in their sole discretion determine whether any proposal shall be accepted and shall not be bound to accept any proposal.

The last date for receipt of proposals, addressed to the undersigned, shall be TUESDAY, MARCH 15, 1960 AT 2.00 P.M., E.S.T.

J. McCulloch,
Regional Administrator, Operations,
Central Mortgage and Housing Corporation,
650 Lawrence Avenue, West,
TORONTO 19, Ontario.
Telephone RU. 1-2451.

THE INVESTMENT FUNDS

Scudder Fund of Canada Per-Share Value Dips 3.8%

Scudder Fund of Canada Ltd., U. S. - owned Canadian mutual fund, net asset value per share fell 3.8% to $11.95 (Canadian) at Nov. 30, 1959, from $12.42 three months earlier. In U. S. funds, net asset value was $12.58.

Total net assets amounted to $56.4 million (Canadian) at the end of November, down 6.3% from $60.2 million at Aug. 31, 1959.

During the quarter, the fund maintained its principal amount of bonds, while purchasing $500,000, 5½% Government of Canada bonds, due 1962-75 and liquidating a like principal amount of **United Acceptance Corp.**, 6⅝% bonds, due 1959.

The fund's common stock holdings were increased by the purchase of shares of **Chas. E. Frosst & Co.**

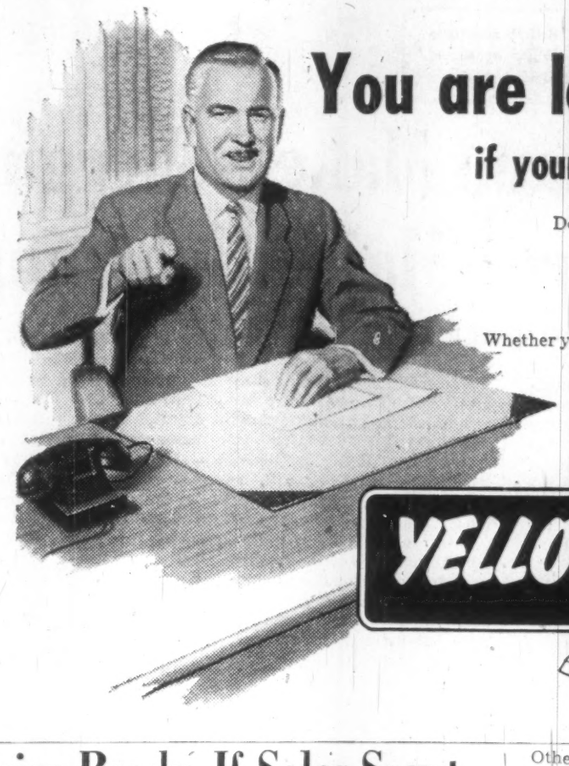
Holdings of **Trader's Finance Co. "A" shares** and **Mining Corp.** stock were eliminated. Four other stocks were increased and six decreased.

Here are the changes for the three months in detail:

	Amount held at Nov. 30 1959	Change since Aug. 31 1959
Bonds	$	$
Canada, 5½%/62-75	500,000	+500,000
Utd. Accep. Corp. 6⅝%/59	nil	—500,000
Common		
Traders Finance "A"	nil	—4,200
Chas. E. Frosst	15,000	+15,000
Cassiar Asbestos	32,000	—9,500
Crown Life Insur. Co.	1,750	+250
International Nickel	10,000	—10,000
Mining Corp.	nil	—28,000
Consol. Paper	5,000	—7,000
Great Lakes Paper	12,260	+2,260
MacMillan & Bloedel "B"	39,000	—4,725
Westminster Paper Co.	20,000	+1,925
B.A. Oil	45,000	—20,000
Shawinigan W. & P.	50,000	+10,000
Goodyear Tire & Rubber	1,235	—170

PULP & PAPER MEET

The 47th annual meeting of the Canadian Pulp & Paper Association will be held in the Queen Elizabeth Hotel, Montreal, Jan. 26-29.



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YELLOW PAGES

Cassiar Ready If Sales Spurt

Cassiar Asbestos Mines is now set to boost output, if market conditions warrant.

President F. M. Connell told shareholders at the annual meeting that expansion of mill capacity to 1,500 tons per day has been completed. But output will only be increased if sales levels climb.

The expansion is part of a $1¼ million capital expenditure program planned for the current fiscal year.

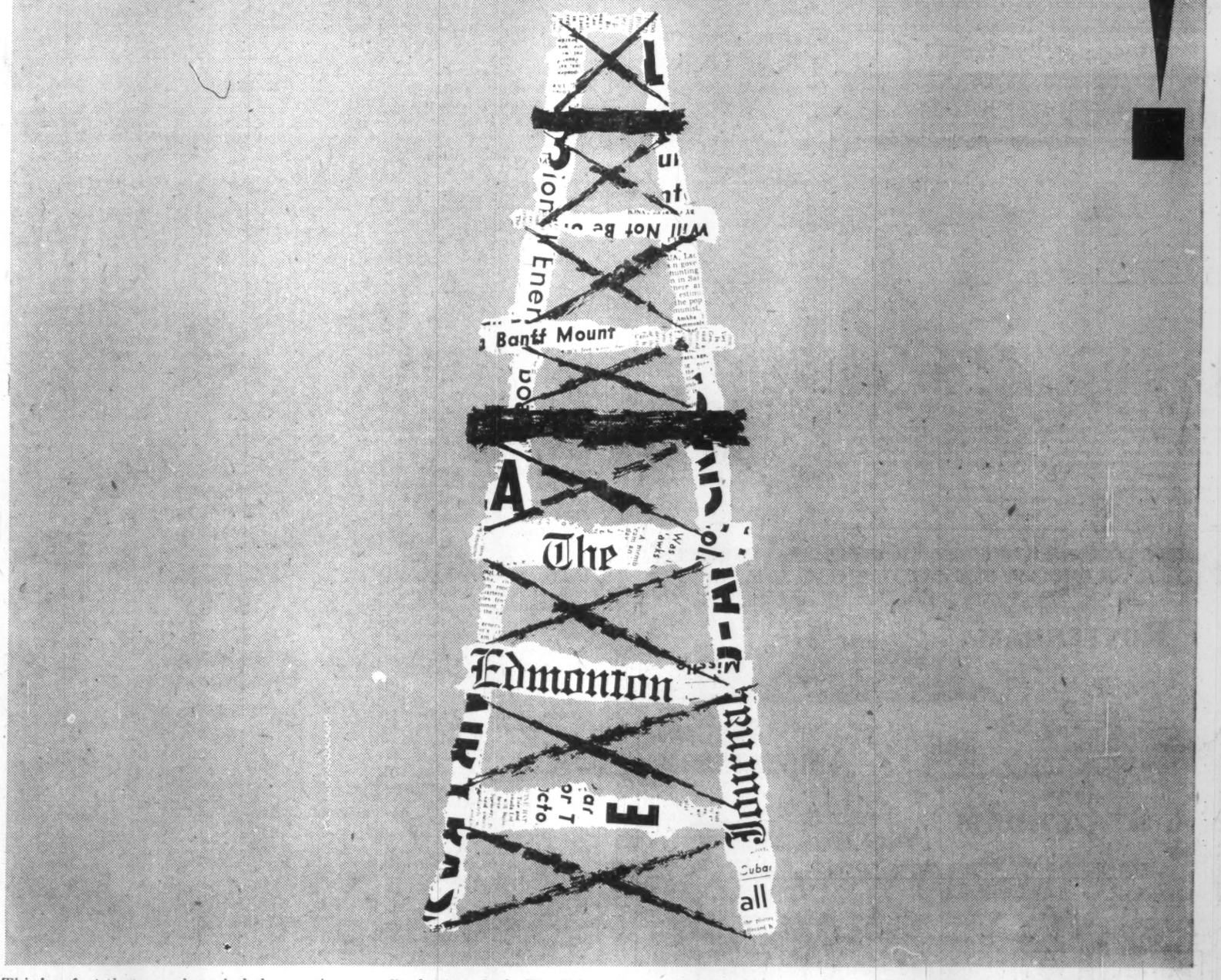
Other projects include purchase of additional heavy mining equipment, more fibre trucks, and construction of an employee recreation hall.

Another large expense item this year will be mine development.

Work on the 5,700-ft. horizon requires an increased rate of stripping. Estimated cost of the development is $1 million.

Connell told shareholders that Cassiar expects to maintain the current dividend rate of 60c a year, including 20c in extras. A 10c regular and 5c extra will be paid on April 25.

255,199 ADULTS* READ THE EDMONTON JOURNAL EVERY DAY!



This is a fact that no sales-minded executive can afford to overlook. The Edmonton market has grown steadily until now it's one of Canada's biggest, most lucrative markets. Cold, hard statistics prove it. Metropolitan Edmonton's population is 317,100, an increase of 83% since 1951 . . . *the most rapid rate of growth enjoyed by any metro area in Canada.* The personal disposable buying income in Edmonton is now at an all-time high of over $435,700,000. The biggest single reason for Edmonton's growth and prosperity has been its rate of industrial expansion and development. The city's gross annual value of production, now $385,056,000, has more than doubled that of ten years ago. In the booming Edmonton market the Journal is the top sales medium. More than 90% of the city zone circulation is home delivered. Sell Edmonton completely. Sell it through the medium the people know best and trust most, The Edmonton Journal . . . Circ. 106,608 A.B.C. March 31, 1959.

*15 years of age and over

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A WORD TO CANADIAN BUSINESS MEN

Are you thinking of opening up a branch business in Europe? If so, please consult me. I can guide and advise you. I am a Canadian Professional Engineer of wide experience, registered in Ontario, resident in Switzerland in the heart of Europe, and am familiar with European industry.

D. HEPBURN, P.Eng.
26 Zwingerstrasse,
Basel, Switzerland

ANNOUNCEMENT

KLM APPOINTMENT

M. J. P. VAN DER HEYDEN

The appointment of M. J. P. van der Heyden as General Manager for Canada, KLM Royal Dutch Airlines, has been announced. He takes over the new post effective February first.

Mr. van der Heyden has been associated with KLM for 30 years, and most recently he was stationed at The Hague as Director of Commercial Product Control in charge of ground handling facilities, catering, aircraft interiors, and service to passengers in general.

He has also served as head of the European Division and as Assistant General Manager for the United Kingdom and Ireland.

Mr. van der Heyden replaces Mr. H. R. Schmelink, LL.D., who will assume the post of General Manager for KLM's West Indies division with headquarters in Curacao.

HOME-STUDY COURSE

Correspondence courses, of six mailings on "How to Invest Your Money in Bonds and Stocks", is being offered through extension departments of the universities of Western Ontario, Saskatchewan, Alberta and British Columbia, in co-operation with the Investment Dealers' Association.

Parliament's Business

By FP's OTTAWA STAFF

Session Lively, Political

OTTAWA (Staff) — The session is off to a lively and highly political start. It is too early to know what may emerge as the chief issues between the parties, or whether any will predominate. But in the first few days it quickly became clear that economic problems are going to be in the forefront.

Mr. Pearson reserved the two last sections of his mammoth 2½ hour opening speech for tight money and trade policy. Paul Martin pitched straight in next day, when the December unemployment figures were released, to try to make Labor Minister Starr admit that they were very much worse than had been predicted.

Finance Minister Fleming got in ahead of the throne speech debate with a lengthy statement about what had been done at the recent Paris meetings on trade and aid; and he described the plans being worked out to replace the organization for European Economic Co-operation (originally set up to supervise the Marshall Plan) with a new but similar body of which Canada and the U. S. would be full members.

His emphasis was placed heavily on Canada's interest in keeping the channels of trade free both with Europe and in Europe.

"Preachers," Mr. Pearson retorted. While they were preaching freer trade abroad, ministers were imposing restrictions at home — alarming Japan, raising tariffs and imposing arbitrary valuations.

The Liberals, Mr. Pearson repeated, still believed in exploring the possibility of a North Atlantic free trade area. "Nothing less than that will do," he said.

The opposition has also been making a good deal of the balance of payments deficit. Mr. Pearson spoke of "increasing integration with the United States in nearly every field," and said: "We were to have been saved from all this by the present government."

"Tight money" is in for a good run, too. The opening Liberal line is to insist that the government is responsible for it "by hogging the market"; and that it can't pass the blame onto the Bank of Canada nor to the chartered banks.

"The PM says the government has no tight money policy," said Mr. Pearson. "Then it is tight money without any policy, which is worse."

The government's answer to the opening Liberal attack was delayed, because on Tuesday the throne speech debate was interrupted to deal with the government's proposed payments and credit arrangements for western farmers whose crop is under snow.

Mr. Diefenbaker had a relatively short time on Monday night, and before starting to answer Mr. Pearson, particularly on defence, he announced three decisions which had not been mentioned in the Speech from the Throne.

First was the decision to appoint a "Hoover-type" commission to report on ways "improving the efficiency of national public administration". This was something that had been promised before the Conservatives took over the government in 1957, and there have been many hints through the last two years that it was coming.

But the Prime Minister has still given no details. He recalled that the U. S. Hoover Commission had 24 task forces covering different departments, and he stated outside the House that the commission would need the very best people that could be found.

Second came the unexpected decision to take another try at getting agreement with the provinces to allow the British North America Act to be amended in Canada.

The St. Laurent government tried this in the early 1950s, when several "constitutional" meetings were held with the provinces; but it was impossible to reach agreement.

Mr. Duplessis' views represented one of the hurdles, and Mr. Diefenbaker may calculate that the new leadership in Quebec should make it easier.

But there are plenty of complexities in the way of getting a simple arrangement, and Mr. Diefenbaker seemed to indicate that he hadn't yet approached the provinces about it. All he said was "My hope is that the time will not be too long delayed when, as a result of an agreement with the provinces we will arrive at a point . . . where the BNA Act can be amended in Canada without going to Westminster."

Third was the appointment of another all-party rules committee to try to improve the Commons' rules of procedure. This had been expected ever since the Conservatives came to power, having promised to abolish the provision for closure.

In fact, governments with an adequate majority are always very conscious of the need to put some limit on all the talk, while opposition parties are apt to feel that their chance to prolong debate is the strongest weapon they have.

The last time the rules were tightened up a little was in 1955, after lengthy meetings of a small committee. Then the Liberals, with Walter Harris as their leading representative, were trying to tighten things up. The Conservatives' E. D. Fulton, now Minister of Justice, and the CCF's Stanley Knowles, now with the CLC, were taking the opposite side. It will be interesting to see how party attitudes have changed.

The proposed amendments to the Civil Service Act are to be considered by a special committee (probably of both houses), and it will be a real working committee. Everyone will be anxious to get a new act that all parties can support, if that is possible, so as to stress the independence of the civil service.

The government bill, to be put before the committee, will follow the lines of the Heeney Commission's report (**FP**, Jan. 24, 1959), but may not accept all its recommendations.

Its main objectives were to preserve the "merit" system but make it more flexible, to give each department more say in the management of its own staff, to give civil servants more of a choice about pay and conditions of work, and to make it easier to fire civil servants who are inefficient but more difficult to fire them for "political partisanship".

Better Fire Gear Improves Safety

Shorter fire trucks, with turbine engines, will get firemen there sooner with more water . . .

In the next few years, you can expect better fire protection from even more efficient fire fighting equipment.

The trends:

- **More pumping capacity** on a shorter wheel-base vehicle. In other words — more fire-fighting power on a vehicle taking up less space in crowded streets and garages.
- **Switch to turbine engines**, dropping gasoline piston engines and skipping diesels altogether.

Since the fire truck's engine also drives the pump, this will mean more water under greater pressure.

- **More fire-fighting with fog or spray** at high pressure thus less water damage.

The turbine will represent quite a jump from existing fire engines, an executive of **LaFrance Fire Engine & Foamite Ltd.**, told **FP**.

Just how big an increase in efficiency it will mean is too early to say but it will be substantial.

Opening of LaFrance's new $361,000 plant this week at 60 Coronet Rd., Metro Toronto, represents a significant step forward for this long-established Canadian subsidiary of **LaFrance** of the U. S.

It means reduction in imports of major components and brings closer the company's immediate aim of achieving at least a 40% Canadian content in its equipment.

Company now sells from 40-50 pumper units a year.

Other major suppliers of custom pumpers: **King-Seagrave**, Woodstock, Ont.; **American Marsh Pumps (Canada) Ltd.**, Stratford, Ont.; **Pierre Thibault Ltd.**, Pierreville, Que.

While a basic design is used, LaFrance builds its pumpers from the frame up, custom tailors and equips them to suit the individual buyer.

Custom pumping engines in Canada cost from $22,000 to around $30,000, with aerial pumpers reaching $40,000 to $45,000.

But LaFrance and a number of other companies mount water tanks and fire extinguishing equipment on ordinary commercial chassis which sell at around $15,000 to small communities.

While pumpers are occasionally bought on the installment plan, most communities raise a debenture, pay for the engine in cash within 30 days.

Needs of a community are determined by the local fire marshal's office and the fire underwriters who give a community a fire rate based on the type of protection it has.

How long does a pumper last?

LaFrance is servicing 30-year-old pumpers in Canada, still keeps the parts for them, but the obsolescence period is figured normally at around 15 years, **FP** was told.

The company also produces some 50 sizes of fire extinguishers from six basic types of foamite, soda-acid, dry chemical, carbon dioxide, and vaporizing liquid.

Best bet for the home owner, cottage and boat owner:

The small, 2½-lb. dry chemical all-round extinguisher produced by LaFrance and a number of other Canadian manufacturers. Price: around $18.

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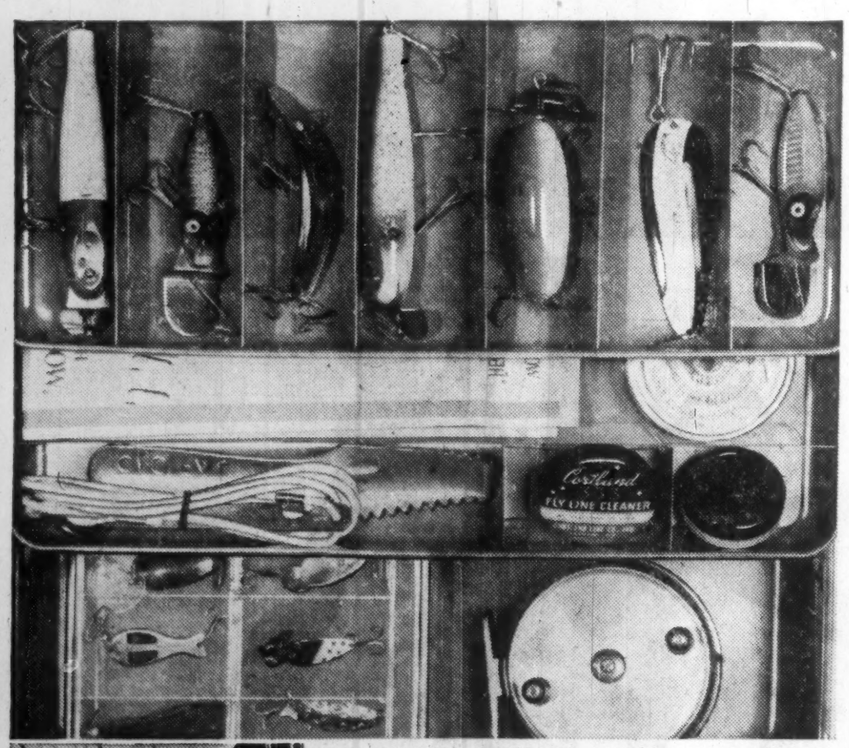

Over a quarter of a million square feet of Arborite (one of the many building materials) held in stock. Shown are full crates of Arborite, stored in new vertical racks for fast handling by a "guided" fork lift truck.

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Move to Start Nuclear Group

First step toward the formation of a Canadian Nuclear Association (**FP**, Jan. 9) was taken last week in connection with the first Canadian Conference on Uranium and Atomic Energy in Toronto.

During a meeting at Queen's Park, the following organizations agreed to be represented on an ad hoc steering committee:

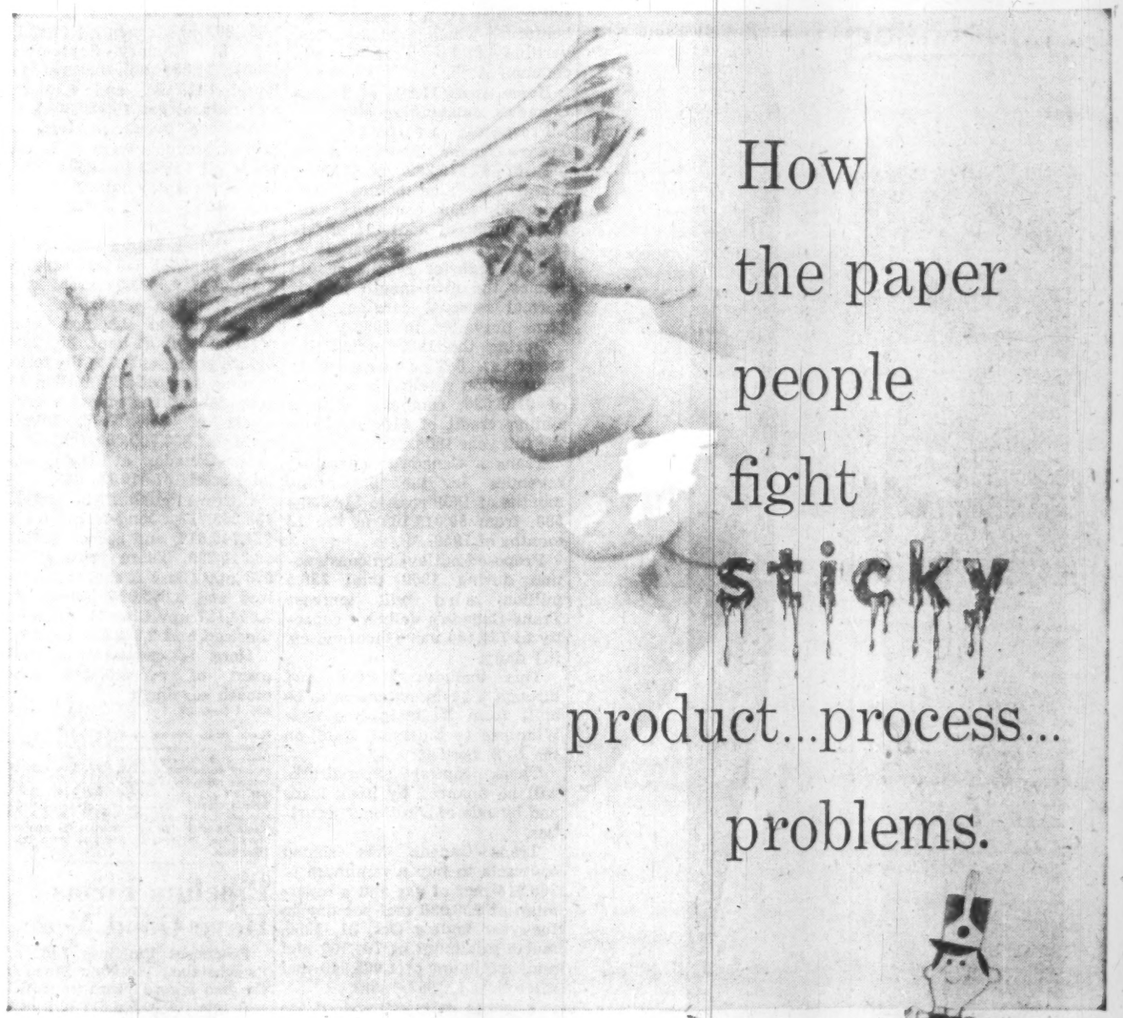
A. M. F. Atomics (Canada) Ltd., Canadian Bechtel Ltd., Canadian General Electric Co., Canadian Westinghouse Co., Foundation Co. of Canada, Orenda Engines Ltd., Rio Tinto Mining Co. of Canada, University of Toronto.

J. L. Olsen, CGE, was named chairman of the committee.

Ontario Paper Co. Promotes Sewell

H. Arthur Sewell has been appointed executive vice-president of **Ontario Paper Co.** He succeeds James E. Vallillee who died suddenly Jan. 8.

Sewell also will serve as executive vice-president of **Quebec North Shore Paper Co.**, and **Quebec & Ontario Transportation Co.** He joined Ontario Paper as manager of Baie Comeau woods operations in 1936 and since 1955 has been vice-president, woodlands.



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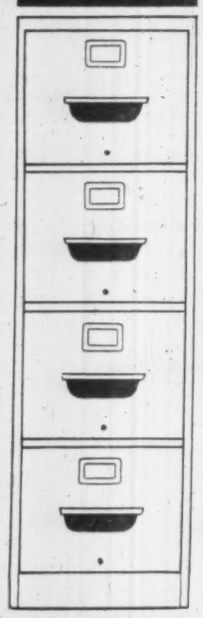

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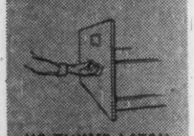

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Inventions

New inventions spell business opportunity. FP reports interesting, patented inventions here. These reports are not recommendations.

Stroll Across Water On These 7 ft. Skis

Would you like to walk on water?

Toronto inventor says this is possible with his buoyant water skis.

They are shaped like pontoons, 7 ft. long, 7 in. wide and deep. You step into a harness in the middle of the skis. You can propel yourself with poles that open like an umbrella when pushed into the water and close when withdrawn. Or you can be towed.

The skis have an automatic steering device which cause the skis to turn in the direction you lean, and automatically straighten up the direction of the ski when you stand upright.

The inventor is being assisted by the non-profit Canadian Research and Development Foundation, Toronto, and seeks a manufacturer in the reinforced plastics field.

Matched Cigarettes

No fumbling around in pockets looking for matches if this invention is adopted by a cigarette manufacturer.

It's a novel and inexpensive way of attaching a book of matches to the inside of a cigarette box.

Pouring Spout

Pouring spout for cans of juice or other liquids seals off the can between pourings. This prevents odors from the contents of the can from permeating to other stored food.

The spout also acts as a can opener.

You press it into the can and then pour in the same way you use an oil pouring spout. The spout is small enough to carry in your pocket.

Lawn Edger

Three Toronto men have pooled their ideas to invent a new type of lawn edger.

Most edgers are a simple circular blade at the end of a handle that cuts the lawn neatly.

The new edger, besides doing this, shoves aside the trimmings with a plough-like device that cuts horizontally under the sod.

An adjustable roller that runs on top of the sod permits the gardener to vary the depth of the cut.

Also the circular blade has been given teeth so it grips better.

For trimming along a cement or stone path flush to the lawn, you turn the apparatus upside down and use only the blade.

Anticipated price: $5.

Wall Washer

Invention of New Liskeard, Ont., man is designed to prevent water from dripping on the floor when walls or ceilings are being washed.

The washing apparatus has a cowl arrangement and suction system to suck off any excess moisture.

The water is then filtered and used again by the machine for washing.

The same system can be used for spray painting.

The machine sucks in any excess paint mist that might otherwise float to the floor.

Blizzard Mask

Blizzard mask won't fog up in either a snow or sand storm, inventor says.

A partition prevents the breath from fogging your view.

Window Washer

Three Camrose, Alta., men have invented a machine that takes the risk out of washing windows in the upper stories of buildings.

The window washer works from safety inside the building, while the machine does the scrubbing outside.

It consists of aluminum tubes fastened together to form a rectangle. This is fastened to the outside of the window by the workman, working from the inside with the window open.

A squeegee, interchangeable with a small brush, is mounted on a traveling track.

The window washer moves the squeegee in an up-and-down cleaning action by merely pulling two cords.

Beside him on the floor, the operator has a pressurized one-gallon tank of water which is connected to the squeegee by a flexible rubber hose.

When water is needed on the squeegee, the operator presses a pedal with his foot, and a small amount travels through the tube.

Safety clamps prevent the machine at all times — even when being dismounted or mounted from the window — from falling to the street, the inventors claim.

Four or five windows each hour can be washed by the machine—a speed which compares favorably with the old method, they add.

We are pleased to announce
the election of
Mr. Ewart A. Wickens
to our Board of Directors
and his appointment as a Vice-President

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115 BROADWAY, NEW YORK, N.Y.

Trans-Canada Pipe Lines, Home Oil Report Results

Net loss of **Home Oil Co.** for the first nine months of 1959 was nearly double the corresponding 1958 loss.

Net loss after taxes, in January - September, 1959, was $731,136, or 99.2% greater than the comparable $367,104 loss in the first nine months of 1958.

But a special credit of $3,430,245 in 1958, on exchange of properties for part of Home's investment in **Trans-Canada Pipe Lines Ltd.**, created a $3,063,141 profit for the 1958 period.

Results are reported in a preliminary prospectus, covering a forthcoming public offering of $20 million (U. S.) 15-year debentures, which will be convertible into Trans-Canada common stock.

Home owns 17.8% of Trans-Canada's outstanding stock.

Prospectus reports that Trans - Canada incurred a net loss of $7,276,289 or $1.24 a share in the nine months ended Sept. 30, 1959, compared with a net profit of $651,457 or 11c a share in the full year 1958. (Fourth quarter results should reduce the nine-month loss, if normal seasonal earnings patterns prevailed in 1959.)

During the 1959 period, interest at 8% charged to construction resulted in a credit of $108,525, compared with a similar credit of $10,080,916 in the full year 1958.

Trans - Canada's operating revenues in the first nine months of 1959 rose to $19,738,588, from $9,018,105 in the 12 months of 1958.

Proposed outlays on construction during 1960 total $36.5 million, and will increase Trans-Canada's delivery capacity to 735,460 mcf (thousand cu. ft.) daily.

This includes 204,000 mcf through a 30-in. extension to be built from its main line near Winnipeg to Emerson, Man., on the U. S. border.

These capital expenditures will be financed by bank loans and by sale of additional securities.

Trans - Canada has signed contracts to buy a minimum of 366,414 mcf of gas and a maximum of 558,930 mcf per day in the year ending Oct. 31, 1960, and a minimum of 794,100 mcf and maximum of 1,002,946 mcf after Nov. 1, 1963.

Average daily volume of gas required to supply Trans-Canada's currently contracted market requirements is estimated by company at 350,000 mcf in the current year, 809,000 mcf after 1962.

Home Oil anticipates that it will make an additional $3,783,000 investment in Trans-Canada during 1960 and none in 1961, compared with $3,357,000 in 1959, $17,509,000 in 1958, and $12,985,000 in 1957.

Home's total capital expenditures for this year are estimated at $14,155,000, and for 1961 at $8,835,000.

Proceeds of the forthcoming debenture issue will be applied to this program, to the reduction of bank debt, and to general corporate purposes.

The expansion program will require an estimated $11 million in addition to capital raised through the forthcoming issue. **The additional amount, it is expected, will be met by utliization of cash flow and by additional financing.**

Estimated proven reserves of Home Oil at Oct. 1, 1959, included 68,540,000 bbl. crude oil, 11,346,000 bbl. natural gas liquids, and 441,204,000 mcf of natural gas.

With 26,125 gross acres of oil producing properties and 431 gross wells, Home held net working interest in 13,738.85 acres and 257.3 wells.

Interests in producing gas wells and capped gas wells included 54 gross wells and 21.66 net wells.

Home's production in the first nine months of 1959 included 1,997,963 bbl. crude oil (1,856,926 in January - September, 1958), 34,504 bbl. natural gas liquid (41,763), and 4,364,714 mcf natural gas (4,036,300).

Average prices received on sale of products were $2.34 bbl. crude oil ($2.49 in 1958), $2.13 bbl. natural gas liquids ($2.19), and 4.87c mcf natural gas (5.55c).

At Oct. 1, Home held an interest of 1,712,553 net acres in a total of 4,557,691 gross acres of exploration properties.

Consolidated balance sheet of Home Oil at Sept. 30, 1959, before giving effect to the forthcoming issue of $20 million 15-year debentures, shows current assets of $4,097,197, investments of $33,759,869 (chiefly in Trans-Canada, at cost), and total assets of $79,127,227.

Current liabilities totaled $33,246,717, long-term debt $14,745,616, and earned surplus $6,316,299. There were 4,343,873 npv Class A shares authorized and 2,055,090 issued; and 3,656,127 npv Class B shares authorized and 2,349,531 issued

Here is comparative statement of consolidated nine-month earnings:

Jan. 1-Sept. 30	1959 $	1958 $
Gross. oper. income	5,830,367	5,632,317
Expenses	4,781,698	4,736,956
Other income	6,739	4,937
Income deductions	1,775,244	1,253,956
Income tax	11,300	13,446
Net loss	731,136	367,104
Special credit*	....	3,430,245
Net profit & special credit	†731,136	3,063,141

*Gain on exchange of properties for portion of investment in Trans-Canada Pipe Lines Ltd.
†Net loss.

Pipeline Firms Have Good Year

Producers Pipelines Ltd. and its subsidiary **Westspur Pipe Line Co.** had record years in 1959.

A total of 30,554,372 bbl. of oil were handled during the year.

Of this amount 30,019,059 bbl. were delivered to terminal tankage at Cromer, averaging 82,221 b/d—5,432 b/d more than the previous year.

The remaining 535,372 bbl. were delivered to railway tank car sidings.

Some $1.7 million was spent on construction during the year.

Of this $1.4 million was spent on construction of 96 mi. of new pipeline and $300,000 went into improvements throughout the system.

The new pipeline connected the Queensdale, Parkman and Pinto fields to the main pipeline system.

Outlook for 1960 is bright.

Crude oil deliveries are expected to increase again.

Capital investment program forecast for the year amounts to $1 million.

This provides for construction of 50 more miles of pipeline at a cost of $750,000 and a further $250,000 to be spent on operating improvements.

There's a new wonder-world of travel coming! Soon there will be TCA *Jetliner Service across Canada and to Britain. What better year could you choose for your trip?*

LEGISLATURE LOOK-AHEAD

Premier's Medical Scheme Big Issue in Saskatchewan

From Our Own Correspondent

REGINA — A compulsory medical care plan for Saskatchewan will be the most contentious bill to be introduced in the next session of the provincial legislature, which will open Feb. 11.

The bill, to be introduced by Premier T. C. Douglas, seeks to set up a 10-member committee to work out the plan. It will cover all residents of Saskatchewan.

This scheme is also expected to be a major issue in the provincial elections this summer. Some favor a privately operated medical care scheme.

Opposition members are expected to attack vigorously the government's plan in the legislature.

The session is expected to produce a lighter load for MPPs than last year.

Agriculture Minister I. C. Nollet will introduce two important bills:

- **A family farm improvement act,** to implement the government's rural sewer and water program.
- **Legislation enabling the province** to join the federal government in establishing a crop insurance plan.

The water and sewer plan is expected to figure as prominently in the rural election campaign as did rural electrification in recent years.

The crop insurance plan will likely be limited in scope since it will be of an experimental nature.

Attorney-General R. A. Walker is expected to present legislation connected with the renegotiation of mineral rights contracts in Saskatchewan.

He may also be considering some legislative action to reinforce the criminal code with respect to use of trading stamps.

An eventual decision from the Supreme Court of Canada would influence him.

Legislation affecting **Prairie Pipe Manufacturing Co.,** and **Interprovincial Steel Corp.,** and their proposed merger, is also expected.

This will, it is expected, ensure that the government guarantee on the bonds of Interprovincial Steel would not be impaired by the merger.

In the labor field, it is possible the government may increase the minimum wage in cities from the present $30 to $32.

It is expected that an economic survey of Saskatchewan by Stanford University experts will have been released by the time the legislature sits. This is likely to produce considerable debate.

Party standings of the legislature as it enters the election year: CCF, 36 members; Liberals, 14; Social Credit, 3.

Powerful Four-Firm Team Tackling Tar Sands Riddle

A four-company partnership has been formed to carry on the most comprehensive research project ever undertaken for recovering liquid hydrocarbons from the Athabasca oil sands in northern Alberta.

Imperial Oil Ltd., Cities Service Athabasca Inc. (a subsidiary of **Cities Service Co.** which will operate the project), **Richfield Oil Corp.,** Los Angeles, and **Royalite Oil Co.** make up the four-company team.

Imperial, Cities Service and Richfield will each hold a 30% interest; Royalite's interest will be 10%.

The Athabasca oil sands which comprise the world's largest known reserves of hydrocarbons have been defying efforts for commercial development for many years.

Areas in which these sands are at, or near, the surface contain in excess of 40 billion bbl. of recoverable oil, about the same amount as the proved crude oil reserves of North America.

The present research activities program was begun two years ago by Cities Service.

Subsequently, a $3.5-million pilot plant was built at Mildred Lake, roughly 30 mi. north of McMurray.

The plant includes a 3,000-b/d distillation unit, extensive separation equipment and numerous collateral facilities.

A unique mining wheel, which has proved highly successful in surface mining of coal in Europe, strips the sand from the surface.

In the Athabasca project, the sands are put through a series of processes that remove the oil and return clean white sand to the mined areas.

The tar sands are located some 300 mi. north of Edmonton.

Canadian Firm Makes Hard Hats

A Canadian company has started making a product hitherto entirely imported — safety hats.

Safety Supply Co., Toronto, Canada's largest supplier of safety equipment, has gone into production of new polyester, fibreglass-reinforced safety hats and caps.

All those now worn by construction workers, road and rail repair crews, oil riggers, miners or in industrial plants have been imported from the U. S. (about 90%), the U. K. or West Germany.

"We have felt for some time that they (hard hats) were an item that should be manufactured in Canada, but the high cost of tooling plus the comparatively low volume sold, combined with the lack of any tariff protection, made the project somewhat speculative," said Roy Mansell, assistant Toronto manager.

"We decided a year ago that the time had come to produce and offer to industry, a wholly Canadian product."

The hats meet standards for industrial protective hats, the firm says.

U.S. Demand For Nickel To Rise 13%

From Our Own Correspondent

WASHINGTON — Good news for Canada's nickel producers.

The booming U. S. economy in 1960 means U. S. consumption of nickel, will rise 30 million lb. to 255 million lb.

The big customers are the steel and automobile industries.

Their production will be up sharply in 1960 and thus, they will need more nickel, says the U. S. Commerce Department. Nickel also is required in much of the nonferrous materials and its consumption in this area should increase substantially.

Defence requirements for nickel in total for the U. S. this year, probably will be at about the same level as in 1959.

The rising demand for nickel in the U. S. is being matched by increasing production capability in Canada.

International Nickel Co.'s Moak Lake project in Manitoba goes into operation this year.

With the rise to power of Fidel Castro in Cuba, Washington is not especially anxious to become dependent upon Cuba for any particularly large portion of its nickel purchases.

Production at the U. S.-owned **Nicaro** plant in Cuba is running just under 40 million lb., all of which normally is a part of the U. S. supply.

Cuba has recently imposed a duty on minerals exported from Cuba of 25% of their value and Washington is not sure just how this will affect imports from Cuba. Also concerning the U. S.: The new Freeport Sulphur plant in Cuba just getting into production.

The U. S. government has a stockpile of about 137 million lb., which would have been larger if Washington had not succeeded in cancelling or reducing commitments from Canadian nickel producers.

TO: *the holders of the common shares and warrants carrying the right to purchase common shares of*

HENDERSHOT PAPER PRODUCTS LIMITED

The Canada Permanent Trust Company, as agent for an undisclosed principal, has made an offer to the holders of the common shares and warrants carrying the right to purchase common shares of Hendershot Paper Products Limited at the price of $9 per common share and $3 per warrant right to purchase one common share, all upon and subject to the terms and conditions of a formal offer bearing date January 7, 1960. The formal offer has been mailed to all common shareholders of record of Hendershot Paper Products Limited.

The holders of common shares whose certificates are not registered in their own names and the holders of warrants may obtain copies of the formal offer and letter of transmittal and instructions for acceptance by making application to The Canada Permanent Trust Company, 320 Bay Street, Toronto 1, or at any branch office of The Canada Permanent Trust Company. There are branch offices at the Cities of Vancouver and Victoria, Edmonton, Regina, Winnipeg, Woodstock (Ontario), Brantford, Port Hope, Hamilton, Montreal, Halifax and Saint John, (N.B.)

Attention is drawn to the fact that a large number of the warrants were issued in connection with the 6½% First (Closed) Mortgage Sinking Fund Bonds and 6¾% General Mortgage Sinking Fund Bonds of Hendershot Paper Products Limited.

THE CANADA PERMANENT TRUST COMPANY
320 Bay Street, Toronto

ROOFERS TO MEET

Canadian Roofing Contractors' Association will hold its first annual meeting and trade show at the Sheraton-Mount Royal Hotel, Montreal, Feb. 8-10. Business sessions will feature addresses and panels on roofing techniques, problems, costing and estimating, safe roofing practices.

TCA DC-8 Jetliner Service begins this Spring!

TORONTO TO VANCOUVER IN 4 HOURS 40 MINUTES!

In a few short weeks the Jet Age, and a new era, comes to Canada. What a difference Jetliner Service will make to long distance travel! Flying times on many routes will be cut by almost half.

But there's more than speed to the story. Air travel will be more comfortable, more pleasant than ever before. High above the weather, in the serene, sunny world of the upper air, flying is smooth and steady. So quiet that you'll enjoy high-fidelity music as you go!

In the giant DC-8, TCA engineers specified the best of two worlds—the aircraft by Douglas, the world's most experienced builder of airliners, the jet engines by illustrious Rolls-Royce. TCA's introduction of Jetliner Service is another, notable "first" for travel in Canada.

TRANS-CANADA AIR LINES

SEE HOW DISTANCE MELTS AWAY!

TORONTO — WINNIPEG . . .	2 HRS. 20 MINS.
TORONTO — MONTREAL	55 MINS.
TORONTO — GLASGOW . . .	6 HRS. 10 MINS.
TORONTO — LONDON . . .	6 HRS. 35 MINS.

LET YOURSELF GO
GO TCA JET

JETLINER SERVICE BEGINS...

APRIL. Daily service across Canada in both directions—MONTREAL—TORONTO—VANCOUVER / JUNE. Atlantic service—MONTREAL to BRITAIN

JUNE. Through service TORONTO to BRITAIN and TORONTO—WINNIPEG—VANCOUVER

Full information from your TCA Jet Travel Agent or call TCA

TCA IS NOW THE LARGEST AIRLINE IN THE COMMONWEALTH—based on number of passengers carried and passenger-miles flown by any single airline, not including subsidiaries.

ANNOUNCEMENT

G. H. WOOD & CO., LTD. APPOINTMENT

HAROLD L. WHITE

Geoffrey H. Wood, President and General Manager, G. H. Wood and Company Limited, announces the appointment of Mr. Harold L. White, a Director of the company, as a special sales consultant to the company's sales management and personnel across Canada.

The Company's record breaking sales and planned further progress has necessitated the creation of this important new position.

Mr. White has had more than 20 years' experience in the company in practically every phase of its sales operations, and is therefore exceptionally well equipped to handle this new assignment. Mr. White will continue to make his headquarters in Toronto.

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Most Modern
Most Luxurious
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Kitchenettes

Convention And Banquet Facilities
Indoor Parking
Choice Food
Entertainment

Beacon Arms
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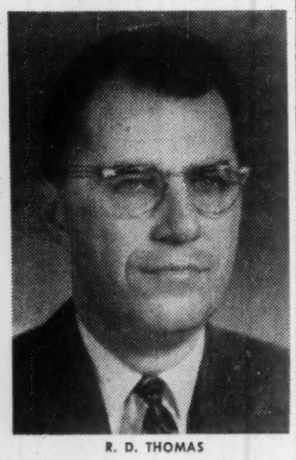
ANNOUNCEMENT

THE CANADIAN INSTITUTE OF CHARTERED ACCOUNTANTS



R. D. THOMAS

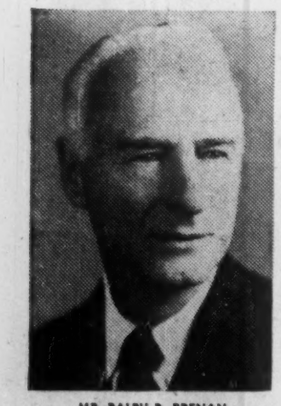
The President and Executive of the Canadian Institute of Chartered Accountants are pleased to announce the appointment of R. D. Thomas, B.Com., M.B.A., C.A., to the position of Executive Secretary and Director of Research.

Mr. Thomas received his B.Com. from the University of Toronto, became a member of the Institute of Chartered Accountants of Ontario in 1950 and received his M.B.A. from the University of British Columbia where he served as assistant professor, Faculty of Commerce and Business Administration, from 1951 to 1956.

He leaves professional practice to accept his new appointment.

ANNOUNCEMENT

ELECTED TO BOARD OF CRUSH INTERNATIONAL LIMITED



MR. RALPH B. BRENAN

MR. PERCY M. FOX

Mr. Ralph B. Brenan of Saint John, N.B., and Mr. Percy M. Fox, of Montreal, were elected to the Board of Directors of Crush International Limited at the Annual Meeting of the international soft drink beverage organization. Mr. Brenan is president and managing director of G. E. Barbour Company, Limited, of Saint John as well as a vice president and director of the Admiral Beatty Hotel Co. Ltd. and a director of the Bank of Montreal, the Fraser Companies, Limited and other Maritime companies. Mr. Fox, one of Canada's leading industrialists, has widespread and diversified interests throughout the country. He is president of St. Lawrence Corp. Ltd. and a director of a number of companies including the Royal Trust Company, Imperial Bank of Canada and Montreal Locomotive Works Ltd.

LEGISLATURE LOOK-AHEAD

Provincial Tax On Industries Alberta Hotspot

From Our Own Correspondent

EDMONTON — A proposed industrial tax is the "hot potato" that may throw sparks at the first 1960 session of the Alberta legislature, opening Feb. 11.

The provincial government has not decided definitely that an industrial tax will be introduced.

This tax scheme has been vigorously opposed in some quarters, especially by the city of Edmonton, but it has been approved in principle by a provincial-municipal advisory committee.

Under the government's scheme, it would tax industries and distribute the revenue among municipalities.

This will be the first session of the house since the provincial general election last June.

The result was an overwhelming victory for the Social Credit government.

Of the 65 seats at stake, the government captured 61. The opposition of four is made up of one Liberal, one Progressive Conservative, one Coalitionist and one Independent Social Crediter.

Thus, the government can soon snuff out the efforts of the slender opposition which, however, can capitalize on one concession: It will not be subject to the 40-min. time limit on speeches of backbenchers.

The government, headed by Premier E. C. Manning, faces the forthcoming session with the largest majority since Social Credit under the late Premier William Aberhart took over the reins of power in 1935.

Prior to the 1959 general election, Liberal strength in the assembly was 15, Conservatives, three, CCF two, with one Liberal Conservative, one Coalitionist and one Ind. SC.

There is a strong belief that the government will bring down a record budget for the 1960-61 fiscal year, which opens April 1.

The 1959-60 budget called for an expenditure of $309 million.

While a $48 million deficit was forecast, this has not materialized. There's a strong belief that Provincial Treasurer E. W. Hinman will strive to present a balanced budget.

One of the major subjects to be reported to the legislature: The massive findings of the royal commission on education, headed by Senator Donald Cameron.

The commission recommended higher professional standards for teachers, a system of higher pay based on merit rating, changes in curriculum, establishment of community colleges to teach vocational and trade programs, in addition to academic subjects.

While the members will discuss the report, many of the recommendations will not require legislation.

If some changes in the School Act are necessary, these may not be made until the 1961 session, according to Education Minister A. O. Aalborg.

Some peppery debate is expected on the report of the royal commission that dealt with the problems and conditions of the Hutterite colonies in Alberta.

The commission recommended establishment of a board with discretionary powers to regulate colony landholdings and begin the process of integrating the communal-living Hutterites into Alberta society.

While the government has announced that it is taking steps to revise provisions of the Land Titles Act, this legislation is not planned for the 1960 session but will be introduced in 1961.

A full-scale review of the Alberta Labor Act also is planned for the forthcoming session.

In all probability, a committee will be named to review the Workmen's Compensation Act.

Under its proposed industrial tax, which has caused widespread interest, the government proposes to take some industries off municipal tax rolls and substitute a provincial industrial tax.

The revenue would go to the municipalities, some on the basis of a 70-30 formula.

Under this plan, payments would be made to municipalities on the basis of the number of plant employees within their boundaries.

Provincial Treasurer Hinman has cited this example:

In the case of the Edmonton metropolitan area, Strathcona municipal district, which has a large concentration of industries and a population of 9,000, would receive 30% of the industrial tax.

The balance of 70% would go to Edmonton, and the towns of Jasper Place, on the west, and Beverly, on the east, where most employees of Strathcona industries live.

Indicating that the government intends to bring the industrial tax into effect, Mr. Hinman has said "We must do it now or lose the opportunity to do so."

The provincial government also contends that an industrial tax would bring about a uniform system of industrial assessment and taxation, making it possible for municipalities to be compensated for services given to workers from outside industry.

Many industries have located in suburban areas, which receive heavy tax revenue from them while their workers live in nearby urban areas and create a demand for city services.

One of the main reasons for Edmonton's opposition to the industrial tax is that it claims such would be an interference with the city's general taxing powers.

The government's policy of encouraging and permitting export of surplus natural gas from Alberta also may be subject to warm debate.

Some Alberta consumers contend that this export policy has resulted in domestic gas prices in Alberta being increased.

Government spokesmen, on the other hand, contend that large scale export tends to keep prices down as the building of large-diameter pipe for the Alberta "grid" or gathering system enables companies to serve a larger number of Alberta consumers.

The new session will be opened for the first time by a new lieutenant-governor, Hon. J. Percy Page, a former Conservative member of the assembly.

He was appointed last December following the death of Hon. J. J. Bowlen, who had held the post for nearly 10 years.

Fun in Quebec At Snow Carnival

Quebec City will be the "fun capital" of Canada from Feb. 13 to March 1 as the city celebrates its sixth winter carnival.

Highlight will be a huge costume ball in the city's coliseum. Two other gala events will be the Grand Regency Ball at the **Chateau Frontenac Hotel** and, as a special concession to spinsters, a Leap Year Ball.

Two parades, featuring widely imaginative floats and costumes, will be held, one in Lower Town, the other in Upper Town.

Students will get into the carnival act too, with a week-long drama festival and special parades.

Other events: traditional ski races down the steepest of Quebec hills, torchlight parade at nearby ski centre of Lac Beauport, ice-canoe races across the St. Lawrence River to Levis, an ice sculpture competition and a Mardi-Gras to wind up the carnival on March 1.

Canadian Lumber Escapes U.S. Deadline for Grading

From Our Own Correspondent

WASHINGTON — Canadian lumbermen have escaped an April 1 deadline that could have seriously hurt Canadian lumber exports to the U. S. (**FP**, Dec. 19).

Following urgent requests from Ottawa, the U. S. Federal Housing Administration has extended the deadline on Canadian imports to Sept. 1.

By that time, it expects a Canadian Lumber Standards Committee will be able to provide the grading required by the FHA.

On April 1, a new U. S. law goes into effect which makes mandatory grade-marking of board and framing lumber used in housing built under FHA inspection. This action was taken to protect home buyers and assure them of top quality lumber in FHA-insured homes.

"As far as lumber imported from Canada is concerned," FHA Commissioner Julian H. Zimmerman said, "the various Canadian lumber manufacturers' associations have prepared grade marks which will be accepted by FHA, effective April 1. Grade-marking by these Canadian associations will be in operation by this date on an interim basis."

Zimmerman said a committee of the Canadian Standards Association has been established to fulfill the same purpose for Canadian lumber exported to the U. S. for FHA projects as that performed for U. S. lumber by the American Lumber Standards Committee.

"By Sept. 1," he said, "the procedure qualifying recognized Canadian associations will have been completed by the Canadian Lumber Standards Committee. Grade marking practices in both the U. S. and Canada will be similar."

This Washington decision is good news for Canadian lumbermen who had feared a loss of tens of millions of dollars.

The year ahead is expected to be another good one in U. S. for lumber, despite an anticipated slight fall off in non-farm housing starts. A Commerce Department report on prospects for 1960 states the housing starts drop will be made up by greater activity in other wood-consuming industries.

The outlook for lumber consumption by the railroads in 1960, for instance, is most encouraging. Production of 55,000 railroad cars is expected during the next 12 months, a 60% jump over 1959.

Wheat Barter With Italy Didn't Work

From Our Own Correspondent

REGINA — Chances of any Saskatchewan wheat being exchanged for Italian machinery are slim.

Since **Ansaldo San Giorgio SPA** of Genoa entered a bid on a barter basis to supply **Saskatchewan Power Corp.** with heavy electrical equipment (**FP**, Oct. 17), the latter has selected its suppliers of generators and turbines for the Squaw Rapids hydro project on the Saskatchewan River.

While SPC states it would not refuse to consider further bids from Ansaldo, it is unlikely that the Italian company would be interested in supplying equipment other than turbines and generators.

There are obvious difficulties in the way of using Canadian wheat for barter purposes.

For example, wheat could only be acquired from the Canadian Wheat Board, the sole selling agency.

There would be other problems, such as hedging and agreement on price.

ANNOUNCEMENT

McCANN-ERICKSON APPOINTMENTS

G. P. ALTENBERND

Y. BOURASSA

Dick Wright, president, McCann-Erickson (Canada) Limited, announced this week the appointment of two men very well known in Canadian advertising to senior positions in the Agency.

Monty Altenbernd, for 24 years in charge of D'Arcy Advertising Co., Canadian office, has become Executive Vice-President Account Services and will supervise contact work for all McCann's Canadian clients. Mr. Altenbernd played a leading role in the early advertising development of Coca-Cola Ltd. across Canada and has also handled introductory campaigns for such products as tires, trucks and foods.

Yves Bourassa, formerly a Vice-President and partner in Walsh Advertising Co., Ltd., has joined McCann as Vice-President and Manager of French Services. While he will make his headquarters in Montreal, he will be responsible for directing French services for McCann clients in Toronto and Vancouver as well. Mr. Bourassa has spent a lifetime specializing in the French Canadian market.

Regina Building At $35.1 Million

Total building permit value for 1959 of $35.1 million set a new record for Regina, Sask., beating the previous high total in 1959 of $29.2 million.

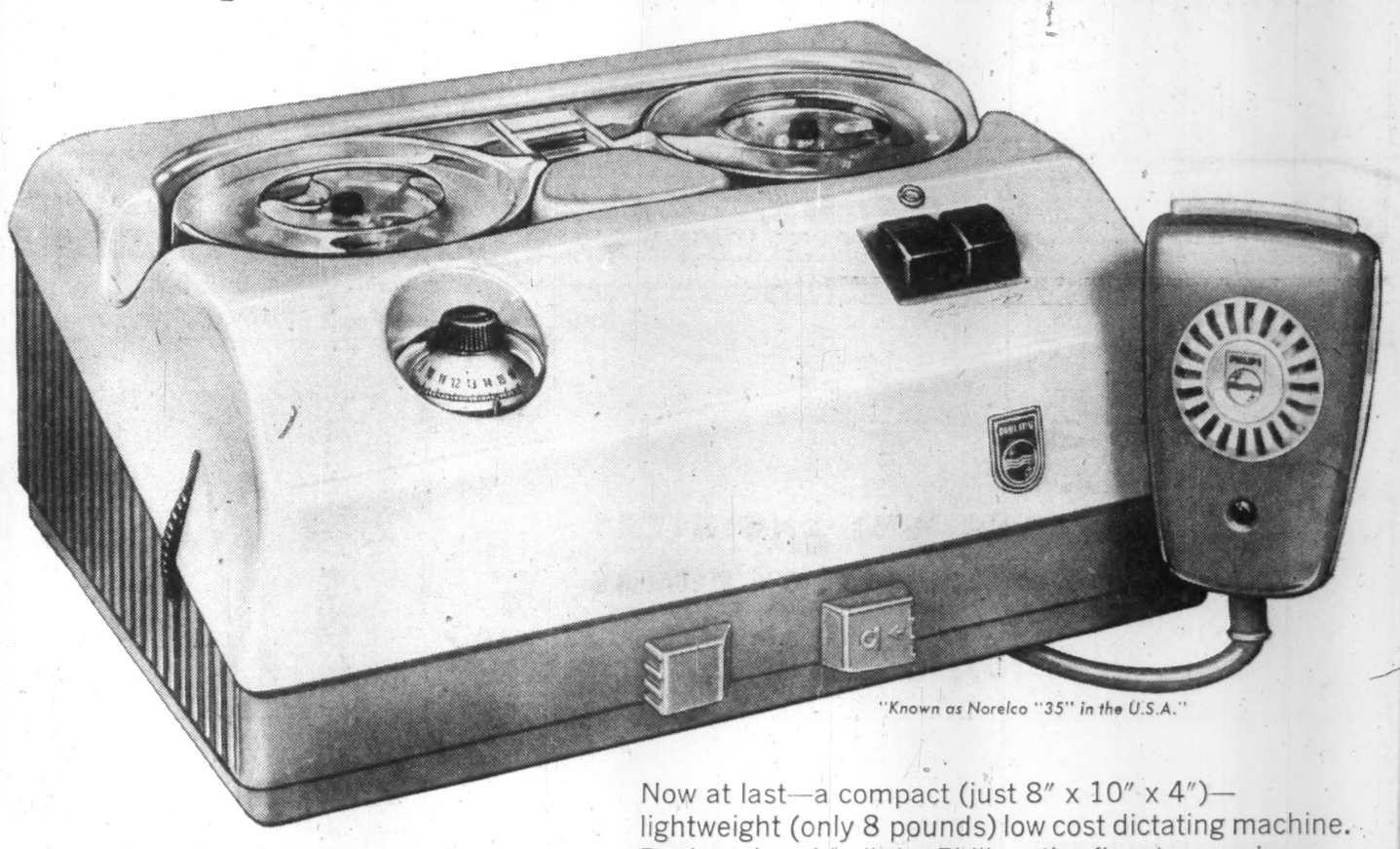
Outlook for 1960 is optimistic, with permit value expected to equal and possibly surpass 1959.

A total of 168 permits valued at $1,144,419 were issued for December, 1959, compared to 113 valued at $688,002 for the same month in 1958.

Dwelling construction permits for the month totalled $425,000 compared to $242,635 last year.

NEW DICTATING MACHINE

Compare this model with any other on the market



"Known as Norelco "35" in the U.S.A."

THE NAME IS **PHILIPS**
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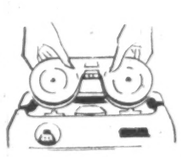
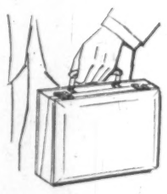
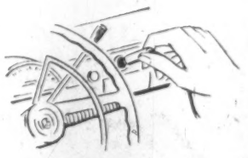
Now at last—a compact (just 8" x 10" x 4")—lightweight (only 8 pounds) low cost dictating machine. Designed and built by Philips, the finest name in electronics. Priced at only $179.50, (combination unit with transcribing accessories $204.50) this amazing new dual-purpose, electronic dictating machine is the most outstanding value in the office equipment field. Take advantage of Philips free 5 day trial offer now! Fill in the coupon below.



Tape Magazine
Plastic magazine for simple, clean, quick loading. Fingers do not touch tape, no adjusting needed. Dictating capacity 35 minutes. Tape re-usable.



Carrying Case
Sturdy, simulated leather carrying case contains dictating unit and accessories.



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Fits hand comfortably, fingertip control. Microphone records, speaker plays back. Easy erasure. Pilot light indicator.

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Two types for transcribing. Simple earloop type permits answering phones, stethoscope type cuts out all extraneous noises. Clear, rich sound cuts down errors.

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U. S. Spending Here

U. S. Defence Expenditures in Canada[1]
(Defence Department Report)

Fiscal year	$ Millions
1953	188
1954	208
1955	196
1956	234
1957	274
1958	342
1959	470
1960[2]	401

1—Including purchases of military equipment, construction, uranium for the Atomic Energy Commission, pay and allowances for U. S. military personnel in Canada and upkeep of U. S. bases in Canada. Does not include subcontracts.
2—Estimate.

Direct Military Buying

Reciprocal Military Purchasing

Fiscal year	U. S. Purchases in Canada[1]	Canadian Purchases in U. S.[2]
	$ 000's	
1951	46,000	247,849[3]
1952	224,874	258,970
1953	273,942	70,339
1954	27,503	117,928
1955	76,238[2]	46,352
1956	26,513[2]	26,766
1957	66,791[2]	18,555
1958	34,630[2]	39,791
1959[5]	...	...
Accumulation	776,491[6]	825,950[4]

1—Data supplied by U. S. military establishments.
2—Data supplied by Canadian Department of Defence Production.
3—Some purchases for fiscal year 1949-50 have been added.
4—This accumulation represents the gross value of contracts for procurement. There have been substantial reductions and terminations. At the end of June 1958, the net figure stood at $580,511,300; there is no comparable net figure giving the U. S. reductions and terminations.
5—The 1959 figures have not been officially made public but for calendar 1959 FP understands they show U. S. purchases in Canada roughly $57 million (including fuel purchases), and Canadian net purchases in the U. S. would show a minus position because of cancellations, according to figures available in Washington.
6—These figures do not include the value of subcontracts placed in Canada.

Defence Sharing 'Numbers Game' Could Hit Canada

Production sharing has been a success, but not as big as Ottawa wants . . .

By C. KNOWLTON NASH

WASHINGTON — The "numbers game" is under way in Ottawa and Washington in the Canada-U. S. defence production-sharing arrangement.

Half a dozen different sets of figures are being bandied about by officials trying to support their particular position.

In Ottawa, the government, anxious to prove the defence industry "marriage" is a big success, is throwing everything but the kitchen sink into the production-sharing "pot" to fatten up the figures.

At the same time, other figures are available from officials that are much smaller and which, the officials say, more accurately reflect what has been accomplished by production sharing.

In Washington the Commerce Department and the Pentagon have different sets of figures and these figures differ drastically from what Ottawa has.

After a week of determined plodding through this fiscal jungle, **FP** has reached these conclusions:

● **Production sharing has been a success,** although not as big a success at Ottawa wants.

● **In the calendar year 1959,** Canadian industry got roughly $100 million in U. S. military orders. This includes $57 million in prime contracts (including approximately $7 million for fuel) and about $44 million in subcontracts.

● **If the defence industry "marriage"** had not occurred last year, Canada still would have obtained almost as many prime contracts as we actually did. But Canada would have got less than half the number of subcontracts.

● **In effect, this means defence-production sharing** in 1959 brought Canadian industry somewhere in the neighborhood of an additional $22 million in U. S. military orders.

The foregoing is based primarily on Canadian figures, which are more realistic than the U. S. statistics.

The Pentagon, for example, says that in fiscal 1959 U. S. military expenditures in Canada totaled $470 million.

At first glance, such a figure bowls over most Canadians, but upon closer examination, it has little relation to the facts.

This Pentagon figure, contained in a recent report from the Comptroller's Office in the Office of the Secretary of Defense, includes the Atomic Energy Commission purchases of Canadian uranium.

It also includes pay and allowances for all U. S. military personnel stationed in Canada (less what they remit home).

In addition, it includes construction and all services and goods purchased by the U. S. bases in Canada, including such things as paint or garbage pails.

And most significantly, it does not include any subcontracts that went to Canada.

Just to make matters a little more complicated, the Commerce Department, which also compiles these figures, has a different set of statistics because Commerce figures are based on a calendar year while Pentagon statistics are based on a U. S. fiscal year which runs July 1-June 30.

The fat U. S. figures, ranging into the $400-million-and-up area, build a good case for Washington to present to Canada. However, it is a very dangerous statistic.

It is likely that again this year there will be some Congressional enquiry into what U. S. defence spending is being done in Canada. California Democrat Rep. Harry Sheppard, for one, is going to be inquisitive, as he was a year ago.

The danger is that the Congressmen will see that $400-million-plus figure, be surprised, and then ask to see how much Canada is spending in the U. S. to balance this.

And here is where the joker comes in with dangerous implications for Canada.

According to current Pentagon figures, net Canadian defence expenditures in the U. S. in 1959 show a minus position for Canada.

This, it is explained by U. S. sources, is because Canada canceled more business with the U. S. in 1959 than she ordered.

Many of the cancelations referred back to orders made in previous years.

But a busy, much-harried Congressman will take a look at these two figures and very likely explode into apoplexy.

To him, it will seem that production sharing is very decidedly a one-way street with the U. S. spending $400-million-plus in Canada, and Johnny Canuck not spending a nickel in the U. S.

Administration officials here are thus scared to death of what may happen once Congress gets a look at these figures.

It, therefore, is necessary to start preparing logical arguments to what almost inevitably will be strong Congressional unhappiness.

In fact, one Congressional committee already has sought from the Pentagon latest figures on defence spending in both countries, but the request has been fended off for the time being.

The value of Canadian real estate in North American defence calculations is not taken into account in the American figures. Also, the inclusion of uranium purchases is hardly justified.

In addition, to get a fair picture of the defence spending, it is necessary to take a look at several years, not just one.

Until recently, Canada has been buying far more military hardware in the U. S. than the U. S. has in Canada.

Over the last nine years, it is realistically figured that the U. S. has made something under $775 million worth of military purchases in Canada (including construction) and Canada has purchased net about $580 million in the U. S.

While these roughly net figures show the U. S. still ahead of Canada, they do not show any value for Canadian real estate being used for such things as the Dew Line.

It must also be realized a large part of U. S. spending was on construction of the Dew Line, which Washington wanted for protection of the U. S.

It will take lots of patience to explain these extenuating circumstances successfully to a harried Congressman who looks only at the 1959 defence spending figures for the two countries.

Winnipeg Transit Gets More Riders

From Our Own Correspondent

WINNIPEG—While most Canadian city transit systems continued to show decreases in traffic, the **Greater Winnipeg Transit Commission** reports a whopping one million passenger increase.

Nearly 1.1 million more passengers were carried in the year ending Oct. 31, 1959, than in the previous year. This is the first increase since 1946.

An improved bus service, which encouraged drivers to leave their cars at home, and an active public relations campaign are responsible.

Gross revenue for the year was $8,358,198, an increase of 1.9%. The net was $248,348.

This has been placed in the rate stabilization fund which now totals $1,076,975. This reserve may be called on to offset possible future deficit operations.

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ANNOUNCEMENT

A Senior Montreal Appointment is announced by J. B. Fraser Executive Placement Consultants Ltd.

R. G. BENNETT

Robert G. Bennett, widely known in Canadian business circles, moves up from the Toronto office of J. B. Fraser Executive Placement Consultants Ltd. to join the staff of the Eastern Division as Director of Executive Placement (Montreal).

With a wealth of executive experience which includes such positions as General Manager of Bromo-Seltzer Ltd., Manager (Retail Division) Helene Curtis Ltd., and other senior positions in advertising and marketing fields, Mr. Bennett now has added an outstanding record as a most successful executive placement consultant.

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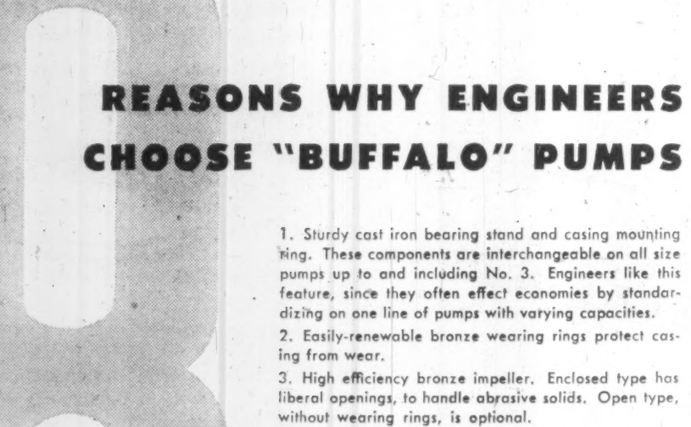

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THE INVESTMENT FUNDS

Cdn. Anaesthetists' Fund Adds to Common Holdings

Canadian Anaesthetists' Mutual Accumulating Fund, Toronto, net asset value per share increased 3.9% to $5.68 at Jan. 4, 1960, from $5.46 three months earlier.

Total net assets at $388,752 were up 15.1% from $330,125 at Oct. 1, 1959.

During the quarter, the fund purchased common shares of **Algoma Steel Co.** and **Simpsons Ltd.** and added to its holdings of 13 other common issues. Common stock holdings of **St. Lawrence Corp.** and **Standard Paving Co.** were liquidated. Also eliminated from the portfolio were **Consumers' Gas Co.,** 5% bonds, due 1978.

Here are the portfolio changes for the quarter in detail:

	Amount held at Jan. 4/60	Change since Oct. 1/59
	$	$
Consumers Gas Co. 5%/78	nil	—5,000
Common	shares	
St. Lawrence Corp.	nil	—400
Standard Paving Co.	nil	—900
Abitibi P. & P.	300	+100
Algoma Steel	400	+400
Consumers Gas	500	+300
Howard Smith	300	+150
Simpsons Ltd.	400	+400
Steel Co.	250	+100
Aluminium Ltd.	450	+150
Bank of Montreal	200	+100
Consolidated Paper Co.	300	+100
Dominion Foundries	210	+100
Great Lakes Paper	200	+100
Ind. Accept. Corp.	400	+200
International Nickel Co.	250	+200
Noranda Mines	200	+100
Toronto-Dominion Bank	200	+100

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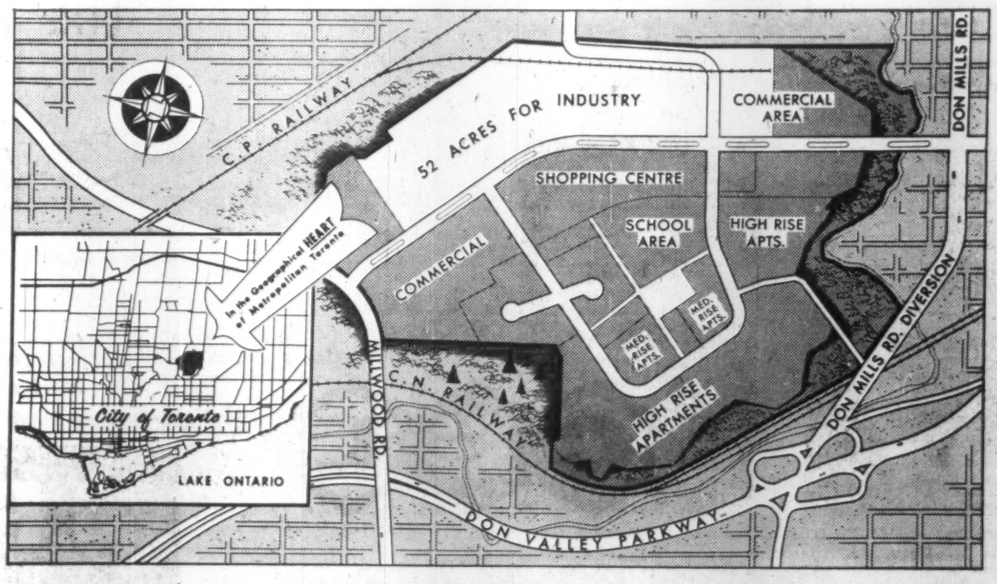

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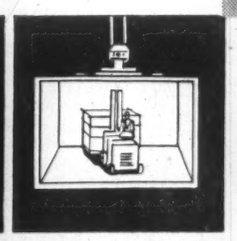

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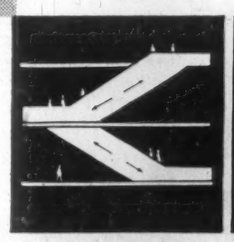

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How Ottawa plans to give self-government to our Northland . . .

And what the prospects are for developing the economy of this vast area . . .

By LESLIE WILSON

The government is planning to create new opportunities for the 34,000 people living in the Northwest Territories and Yukon to learn to govern themselves.

The exact schedule hasn't been laid down and the plans don't mean "provincial status" in the foreseeable future for the two territories.

Whether the two territories will eventually become provinces and get the right to borrow money and control their own public lands will depend on how population and income sources develop over the next generation.

Some of the present plans for changes in the territorial administrative setups are firm.

Others are only in the discussion stage.

Here is a possible schedule:

- **Amend the Yukon Act** so that the Yukon commissioner (the executive authority in the territory) will follow the British practice of taking part in the proceedings of his council, instead of the U. S. practice of sitting separately.

- **Appoint a permanent financial subcommittee** of the Yukon Council which the commissioner would consult as he prepares his budget. The commissioner would retain responsibility for the budget.

These two changes are firm and may come in the present session of Parliament.

They would give the Yukon councilors experience in the financial side of public administration which is denied them at present.

They would also merge the law-making and executive powers which are now separated under the Yukon setup.

- **Create a NWT "territorial civil service"** by moving civil servants connected with NWT administration (mostly in Northern Affairs Department) from Ottawa to Fort Smith, NWT.

The NWT deputy commissioner, who now works from Ottawa, would become the chief "on the spot" administrator of the NWT.

He would remain for the time being under the orders of the commissioner, who would remain in Ottawa.

This step, in the planning stage, is probable by 1962.

- **Give people in the NWT** the same kind of representative government that people in the Yukon now have by making a majority of the NWT councilors elected, rather than appointed members.

Six of the 10 NWT councilors are now appointed by the cabinet, four elected by the people.

In the Yukon, all councilors except the commissioner are elected.

A similar change for the NWT would mean eight elected councilors and a cabinet-appointed commissioner and deputy commissioner.

- **Carve another territory** with the same type of status as the Yukon now possesses out of the NWT.

The NWT now consists of three "districts" — Mackenzie, Keewatin and Franklin.

The new territory might consist of the present Mackenzie district (the 527,500 sq. mi. of northern mainland lying between the Yukon and the northern projection of the Saskatchewan-Manitoba boundary) plus Banks and Victoria islands to the north.

These islands are now in the Franklin district.

The NWT deputy commissioner at Fort Smith would then become full commissioner of a new "Mackenzie Territory".

He would preside over an elected council and people in the new territory (90% of the NWT's population is concentrated here) would have full "representative" government, if not "responsible" government.

Administration of the other two districts of the NWT (Keewatin, the remaining 228,000 sq. mi. of mainland, and Franklin, the northern islands with the exception of Victoria and Banks) would remain the responsibility of the NWT commissioner at Ottawa.

The last two changes are in the "very tentative" planning stage.

Birthday Gift

There is some speculation among observers here that they could be tied to the date July 1, 1967, the 100th anniversary of Confederation.

Announcement of a new substantially self-governing Mackenzie Territory as part of Canada's centennial celebrations would be bound to appeal to whatever government, Liberal or Conservative, is in power.

The reason for the totally different treatment of the two territories lies in Canadian history.

Three years after Confederation, a U. K. order-in-council transferred "Rupert's Land" (the Hudson Bay watershed claimed by the Hudson Bay Co. under its charter) and the "Northwest Territories" (the western Indian country held under licence) to Canada.

Later, another order-in-council gave us all the islands claimed by the U. K. in the North American Arctic.

We created the province of Manitoba by a Dominion statute in 1870, and handed it immediately a governor, council and elected assembly with a responsible cabinet.

In the next 35 years settlers poured westward across the Manitoba boundary.

When the number reached 400,000, a Canadian statute carved out two more provinces, Alberta and Saskatchewan, and handed them governments on the Manitoba model.

The gold rush of the 1870s brought 30,000 prospectors flocking into the Yukon River basin.

Because the prospectors were "floaters" rather than settlers and because the majority were Americans influenced by U. S. traditions, we created a new type of "territorial government" in the Yukon in 1898.

We gave the prospectors representative government because we were afraid that, if we didn't, they would demand U. S. statehood.

At one time the Yukon had an elected council of 10 presided over by the commissioner.

As the gold claims were worked out and the prospectors went home, the council membership was reduced to the present five.

Few Whites

The present NWT consists of the same "Rupert's Land and NWT" we got from the U. K. minus the provinces of Manitoba, Saskatchewan and Alberta and the Yukon Territory.

For 60 years after Confederation there was no pressure for representative government from the NWT because only 4%-5% of the people living there were whites.

The rest were Indians and Eskimos.

Therefore the territory was governed by commissioners and councils appointed by Ottawa.

In the 20 years after 1931, new mineral discoveries brought an inrush of white settlers (white population 1931, 900; 1951, 4,490).

Because the whites wanted representative government, the NWT Act was amended in 1951 to provide for the election of three councilors. Another elected councilor was added later.

Right now there are 13,000 people in the Yukon, 85% of whom are white.

The territory has a tradition of 60 years of representative government.

Of the 21,000 people in the NWT, only 40% are white.

The territory has only nine years' experience with representative government, and that with only a limited form of it.

Income Sources

What's ahead for the territories?

They'll get provincial status when they have the kind of income sources which can bear a tax load sufficient to provide regular provincial services such as health care, control of resources, roads, prisons, etc. and when the population is considered sufficiently experienced in the elective process.

How these income sources will develop will depend mainly on world prices of the minerals which the two territories produce.

Here is a rundown of present production:

Yukon Territory:

- **Minerals:** About $9.5 million worth annually (gold $1.8 million; silver $4 million; lead $3 million, the rest zinc and cadmium).

Oil and natural gas drilling brought in one promising strike last August in the Eagle Plain area.

- **Furs:** In a recent 10-year period, trappers' incomes fluctuated between $144,000 and $677,000 because of changes in world fur prices and numbers of animals caught.

- **Lumbering:** Value of sawn lumber 1956-57, $40,000.

Northwest Territories:

- **Gold:** About $10 million annually in recent years.

- **Uranium:** Figures not published, but running into millions.

- **Oil and gas:** Some 400 men with 60 aircraft spent last summer in oil and gas exploration mainly in the NWT, partly in the Yukon.

- **Agriculture:** Surveys show about 1.6 million acres of arable land, including 500,000 acres of ranchland in the Slave River basin and 100,000 to 200,000 acres of mixed farming land in the Liard River valley.

The Agriculture Department grows wheat and coarse grains regularly at Fort Simpson, west of Great Slave Lake.

At most of the mainland settlements, market garden vegetables grow very well.

The Roman Catholic mission at Aklavik last year harvested 10,000 lb. potatoes to an acre, and grew 1,200 heads of cabbage to a quarter acre.

- **Fishing:** Commercial catch of whitefish and lake trout from Great Slave Lake, worth about $2 million a year.

- **Furs:** In recent years, trappers' incomes have fluctuated between $750,000 and $2 million a year.

Economic Prospects

Here is how some observers look at economic prospects (which will determine population and income) for the Yukon and NWT:

Prospects for agriculture are thought to be poor. So are prospects for trapping.

Most settlements will probably grow their own vegetables. But there may never be extensive wheat-growing for export in the NWT, even if varieties are developed which will ripen regularly in the short summers.

We have difficulty selling our prairie wheat now.

Similarly, trapping will never provide the kind of stable income needed for a growing population.

World prices change too much and supplies of animals are dwindling.

The whole future of the territories rests on their mineral potential.

Costs are High

So far, the great bulk of NWT and Yukon mineral production has consisted of gold and uranium, minerals found in deposits rich enough to withstand heavy development and transport costs.

Serious exploitation of several big base metal deposits in the NWT and Yukon has been held back because development costs are too heavy in relation to present world prices.

The biggest and best known of these is the Pine Point lead-zinc deposit on Great Slave Lake. But at least 20 other big lodes of lead, zinc, iron, copper or nickel are known in territories.

R. G. Robertson, Northern Affairs Deputy Minister, said recently:

"The long-term market picture for northern products is encouraging and the costs of northern operations are likely to decline.

"This should provide growing opportunities for profitable investment."

But Robertson thought that these costs would never fall to levels possible in areas closer to population centres.

"In the foreseeable future, northern development will probably be limited to resource deposits richer than those that can be economically exploited in the south."

Exploitation of oil and gas deposits, Robertson thought, would likely have a relatively small impact on population in the territories because these products would be shipped out to markets by pipeline or tanker.

Refinery installations on the spot were unlikely, at least in the beginning.

But the search for oil and gas would bring improved transportation routes which would give a big push to other kinds of economic development and this would be reflected in a growing northern population.

How Territories Compare

	Area Sq. Mi.	Population —000—	1959 Budget $ millions	Per Capita $
British Columbia	366,255	1,592	300.4	188
Alberta	255,285	1,264	309.6	245
Saskatchewan	251,700	907	133.2	146
Manitoba	246,512	892	84.9	95
Ontario	412,582	6,029	642.0	106
Quebec	594,860	5,062	500.7	98
New Brunswick	27,985	595	74.8	125
Nova Scotia	21,068	719	75.9	105
Prince Edward Island	2,184	103	16.2	157
Newfoundland	156,185	453	67.5	148
Yukon	207,076	14	...	...
Northwest Territories	1,304,903	20	...	...

Territories Citizens Ruled By Cabinet, Commissioners

Both Northwest Territories and Yukon have "representative" government but not, as yet, "responsible" government.

People living in these territories elect representatives to councils which pass laws.

But the law-making power of the councils is much less than that of a provincial government.

Chief differences:

- **The councils can't borrow money** (i.e., by floating bonds) except from the federal government.

- **They don't control the natural resources** of the territories.

- **Ottawa retains control over money bills** passed by the councils.

- **Ottawa has a veto right over laws** passed by the "Council of the Yukon", appoints a majority of members of the "Council of the Northwest Territories".

The Yukon Council consists of a government-appointed commissioner, F. H. Collins, plus members elected by five constituencies within the Yukon.

Members: J. Livesay (Carmacks-Kluane), G. O. Shaw (Dawson), R. L. McKamey (Mayo), C. D. Taylor (Whitehorse East), J. Smith (Whitehorse West).

The NWT Council consists of a government-appointed commissioner plus nine members.

Five are appointed by the federal cabinet and four are elected by people in constituencies of the Mackenzie district.

The commissioner is R. Gordon Robertson, who is also Deputy Minister of Northern Affairs.

Appointed members:

Deputy Commissioner W. G. Brown, chief, territorial division, Northern Affairs Department; H. M. Jones, director, Indian Affairs Branch, Immigration Department; former commissioner L. H. Nicholson of the RCMP and C. M. Drury, president, **Provincial Transport Co.**, Montreal.

There is one vacancy among the appointed members.

Elected members: E. J. Gall (Yellowknife), J. W. Goodall (Fort Simpson), K. H. Lang (Aklavik), R. Porrit (Hay River).

Any Canadian citizen who has lived in either of the territories for a year can vote. This includes Indians and Eskimos.

Elections are held every three years.

The Yukon and Northwest Territories Acts describe both commissioners as "chief executive officers" of their territories, acting under "instructions" of Northern Affairs Minister Hamilton and the cabinet.

Both groups of councillors can initiate laws, apart from money bills, independently of the commissioners. But budgets are prepared by the commissioners.

The Yukon Council has elements of the U. S. system where executive and legislative powers are kept separate.

The Yukon commissioner sits apart from his council and has a right of veto over bills presented to him by the council.

The NWT commissioner takes part in proceedings of his council.

Each member has one vote but ordinarily the commissioner casts only deciding votes.

The NWT commissioner has no right of veto.

But the fact that he controls money bills, plus the fact that a majority of NWT councillors are appointed by the cabinet, gives Ottawa the final say over what laws the council passes.

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ANNOUNCEMENT

BP CANADA LIMITED APPOINTMENT

JOHN M. HOOGEVEEN

Appointment of John M. Hoogeveen to the newly created position of operations manager has been announced by BP Canada Limited. In his new capacity, Mr. Hoogeveen will be responsible for the design, construction and operation of bulk plants (including marine and pipeline terminals), for the supervising of tank wagons, and for the design and construction of BP service stations. He will be located at the executive offices of the company in Montreal and will report to A. M. Wood, vice-president, supply & operations.

YOUR TAXES

An exclusive FP column of comment on the trends in personal and business taxation.

No Deduction for Expense If Court Finds it Illegal

By JOHN G. McDONALD, LL.M.
McCarthy & McCarthy, Toronto

ONE OF the most fertile fields of argument between taxpayers and the revenue authorities is the subject of business expenses.

Under the Income Tax Act a business expense is not deductible unless

1. it is deductible in accordance with generally accepted accounting practice;
2. it was an expense incurred for the purpose of producing income from the business, and
3. it was not an expenditure "on account of capital".

The law reports bulge with cases concerning the proper interpretation to be placed upon these rules. Speaking generally, it can safely be said that the attitude of the courts in Canada has tended to favor the Revenue in borderline cases.

Most recently, in the case of Benson v. Minister of National Revenue, the Tax Appeal Board disallowed the deduction of costs incurred by a farmer in supervising the management of two farms leased to another person on a crop-sharing basis.

The taxpayer's farms were 70 miles apart, and he was therefore obliged to travel back and forth between them in carrying out supervisory work, which included attending to weed cutting around storage bins and turning over stored grain. The taxpayer also spent some time repairing buildings and additionally supplied weedkiller and other farm chemicals at his own expense.

The Board held that "If the appellant chose to incur the expenses he claimed as a deduction from income, he did so voluntarily and such expenses were not 'outlays incurred . . . for the purpose of producing income from property or a business'".

This is not the first occasion upon which it has been suggested that voluntary expenses are not deductible. We know of no legal foundation for such a statement.

"Illegal" Expenses Not Recognized

The other recent case on the subject of expenses is of even more importance.

In **No. 666 v. Minister of National Revenue,** the Board held that expenses are not deductible if they are incurred by reason of an infraction of the law.

In other words, expenses attributable to illegal business operations are not deductible, although the Crown is quite happy to claim tax on profits derived from such operations.

Taxpayer No. 666 incurred legal expenses opposing proceedings taken against him by the Ontario Securities Commission for alleged violations of the Securities Act by the taxpayer's salesmen. It seems that the salesmen were selling stock to customers outside Ontario by telephone.

The result of the taxpayer's appeal was suspension of his license as a broker-dealer under the Securities Act for a period of six months.

The Tax Appeal Board held that the legal expenses in question were not capital outlays, but were related purely to the earning of income.

The Board then went on to say the taxpayer's "real and only difficulty arises from the fact that the legal expenses involved would not have been incurred if the appellant had conducted its business properly and in accordance with the well-known requirements of the Commission instead of in a manner that was irregular and manifestly was not in the public interest . . ."

The Board said that "The theory that the success or failure of the proceedings in which legal expenses have been incurred should have an effect upon their deductibility has been criticized editorially in several publications . . . but it appears to me to find support in the trend of recently reported cases on the subject.

"If a different rule obtained, a taxpayer in business could deduct legal expenses incurred through any flagrant disregard of provincial statutes and regulations that one in his particular calling would be expected to observe in the proper and ordinary course of his business."

Through this and its previous decisions, the Board has assumed authority to wield the tax law for the purpose of enforcing provincial law.

We have always thought that provincial law enforcement agencies, backed by the provincial police, were the proper authorities for this purpose, and that the Income Tax Act was concerned solely with the imposition of a tax on net profits derived from business, etc.

Under the Board rules, anyone engaged in business operations that are contrary to provincial law is taxable upon his gross receipts.

In one of its earlier cases, the Board said that "It would be preposterous if the appellant company was allowed to deduct [expenses] from its assessment and thus be enabled to share equally with the public revenue the loss to which it was condemned by reason of its own unlawful act."

The Board did not mention that the public revenue had already taken half the taxpayer's ill-gotten gains in taxes.

This whole question is in issue in several Exchequer Court appeals now pending.

Even Real Farmer Can't Claim Costs

The courts have been occupied for years with the question: When is a farm a hobby farm?

The Exchequer Court decision last year in Grieve v. Minister of National Revenue settled the question temporarily by, in effect, abolishing it.

By this we mean to say that the court held that whether or not a farm is a hobby farm, farming losses may not be deducted from investment income in computing income for tax purposes.

Section 13 of the Income Tax Act provides that "Where a taxpayer's chief source of income for a taxation year is neither farming nor a combination of farming and some other source of income, his income for the year shall be deemed to be not less than his income from all sources other than farming, minus the lesser of his farming loss for the year or $2,500, plus one-half of the farming loss in excess of $2,500 (not to exceed $5,000 in total)."

Section 139(1)(az) of the Act then provides that: "In this Act a taxpayer's income from a business, employment, property or other source of income or from sources in a particular place, means the taxpayer's income computed in accordance with this Act on the assumption that he had during the taxation year no income except from that source or those sources of income and was entitled to no deductions except those related to that source or those sources."

In the Grieve, case the Exchequer Court held that in a year in which farming operations result in a loss, the taxpayer has no "income from farming".

For this reason his income is not from farming or from farming and a combination of income from other sources, such as investment income. (In addition, income from investments must be computed under section 139(1)(az) without deduction of any losses related to other sources — such as farming.)

This means that even a bona fide farmer may not deduct his losses on the farm from investment income.

In addition, it has now been held by the Tax Appeal Board, in **Cox v. Minister of National Revenue,** that such a farmer may not elect to average his income under section 42 of the Income Tax Act.

It is obvious, therefore, that the consequence of these decisions is to withdraw benefits intended to be conferred upon botl farmers and hobby farmers under the Income Tax Act. This is an area in which some amendment of the Act is required.

An interesting point not yet determined by the courts is whether, on the basis of the Supreme Court decision in **Interprovincial Pipe Line Co. v. Minister of National Revenue** (FP, Oct. 17, 1959), "income" in section 13 of the Act should be construed to mean "receipts".

There seems to be ample authority for this conclusion in the Interprovincial case, and if that authority is followed by the trial courts, the Grieve and Cox decisions may be qualified in the future.

After Four Years Must Prove Fraud

In the case of **No. 441(2) v. Minister of National Revenue** last year the Tax Appeal Board held that, in order to assess tax for a year more than four years prior to the date of assessment, the Department of National Revenue must affirmatively prove fraud or misrepresentation on the part of the taxpayer.

This decision was approved and followed recently in **Balthazard v. Minister of National Revenue.**

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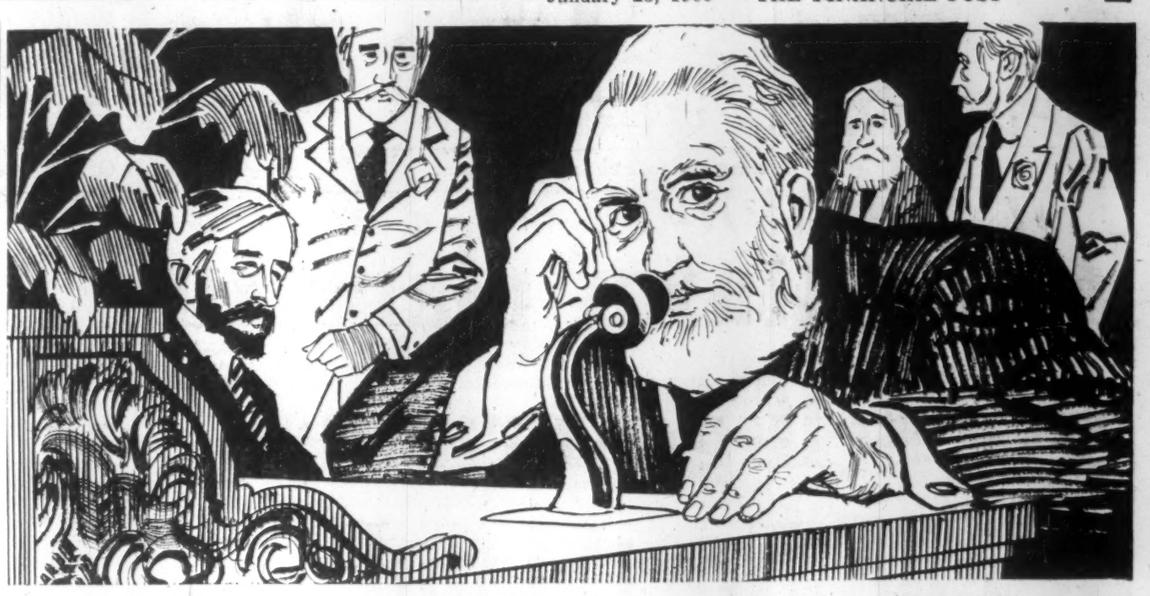
Ottawa	5½	'79	89½	91½	6.25
Regina	5¾	'82	87	89	6.70
Vancouver	5¾	'77	89	91	6.60
Winnipeg	5¼	'77	86½	88½	6.35



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PULP & PAPER

New Pulp Mill For Manitoba Looks Closer

From Our Own Correspondent

WINNIPEG — A $40-million pulp and paper industry is in prospect for northern Manitoba within the next five years.

The provincial department of industry and commerce thinks there is a good chance it may come even sooner.

While no definite commitment has been made by groups that might undertake it, interests in Eastern Canada, the U. S., the U. K., Belgium and Italy have been scrutinizing the possibilities.

Industry and commerce minister Gurney Evans has had a series of discussions in New York, Boston, Chicago, Montreal and Toronto. Those in Canada represented European capital.

At times an agreement has been near conclusion only to have decision deferred for further investigation.

Mr. Evans has been negotiating in his capacity as vice-chairman of the Manitoba Development Authority.

Actually it is a committee of the cabinet assisted by a directorate composed of deputy ministers and heads of utilities.

Their objective is a program to include development of all natural resources of the north, forestry, mining, fisheries, transportation and recreation facilities.

Discussions are still under way and have indicated there will be little trouble in getting capital if conditions are established to give prospect of reasonable return.

A pulp and paper mill is a major unit in the program and is the one on which main effort has been concentrated.

Negotiations so far as they have gone have been based on findings of **Arthur D. Little Inc.** commissioned in 1956 to make an economic survey of northern Manitoba.

Its report early in 1958 made an assessment of northern Manitoba resources, particularly timber, and factors affecting their development. Its findings have been accepted both in and outside the province.

Contrary to widely held opinion, it said, the region offered attractive opportunities for industrial development.

Accessible timber, the report said, is available in amounts sufficient to support several large forest products operations.

Stumpage and wood gathering costs appeared unusually low and the new power plant at Kelsey would enable the Hydro Electric Board to supply low-cost power on comparatively short notice.

Against these advantages it pointed out two serious disadvantages:

- **Fire damage had resulted** in low-average age and size of tree and fire hazards were a continuing threat.
- Freight rates limited potential markets to the U. S. and Europe and discouraged the pulp and paper industry from giving serious consideration to possibility of developing northern Manitoba forest resources.

Freight cost has been one of the big obstacles in negotiations.

The provincial government has hopes this hurdle may be overcome.

Even though some group may decide to make the venture within a year, it would require another two or three years to get a pulp mill into operation.

The best timber stands in northern Manitoba are along the Nelson River and in Lake Sipiwesk and Cross Lake regions.

The Little report said these stands would support a substantial forest products industry around Thicket Portage. This is the area most often scrutinized in the discussions.

Suitability of the wood has already been tested by some of the groups. Reports are that it is good quality.

Another factor to make prospects encouraging, says Mr. Evans, is that many authorities estimate that within five years consumption of pulp and paper products may equal or exceed supply.

With the encouraging prospects that new industry may soon come, the government is viewing a likely need for extension of power facilities.

It has already authorized construction of two extra units—the fifth and sixth — at the Kelsey power plant on the Nelson.

A program of this kind would involve construction of a new transmission line, first from Kelsey to Thicket Portage, and subsequently beyond.

The Kelsey plant can be built so that its major hydraulic works will provide for ultimate installation of at least nine 42,000 h.p. units.

South of Kelsey, actual or potential new power demands exist at four points:

—Snow Lake - Herb Lake areas where mining development is active.

—At Flin Flon where both the town and the **Hudson Bay Mining & Smelting Co.** face a shortage of electric power.

—At The Pas where rapidly increasing power demands may require bulk power from a major hydro-electric source.

—The Thicket Portage area on the **Hudson Bay Railway,** where the major wood products operation now being discussed will likely be established.

Transmission lines between Kelsey and Snow Lake are estimated to cost $8 million, plus a further $1.4 million for terminal and line-switching facilities.

Transmission extension from the Snow Lake area to The Pas would cost an estimated $2.1 million.

Donate Aluminum To New Institute

Aluminium Ltd., Canada, is making a gift of about $10,800 of aluminum to the new Commonwealth Institute to be built in London next spring.

The gift will ensure that Canada will join other Commonwealth countries in making the new institute a truly Commonwealth project.

The aluminum, enough to meet the entire aluminum requirements for the institute, is being given through the company's international sales organization in the U. K., **Alcan (U. K.) Ltd.**

Firms in other Commonwealth countries are also donating material.

The present Commonwealth Institute in South Kensington — it is to be demolished to make room for an extension to the Imperial College — was also greatly embellished by Commonwealth gifts when it was built between 1887 and 1893.

What the Man Said:

Our boom-or-bust policy in house building does not spell orderly growth . . .

J. V. POAPST, assistant professor (finance) at the University of Toronto's Institute of Business Administration, to a meeting of the National House Builders Association in Toronto:

* * *

Government and private economic forecasters it appears, generally expect that 1960 will be a year of contraction in housebuilding. The number of dwelling units started is expected to decline from the 1959 level of some 140,000 units to a level of 125,000 units or less.

The reasons for such expectations are not difficult to find. Throughout the 1950s it was the policy of the federal government to treat housebuilding as a residual form of activity; when it appeared that total activity in the economy would strain our total resources if steps were taken to curtail housebuilding. When it was expected that the total activity would lag, housebuilding was stimulated.

Unfortunately for house builders, 1960 is expected to be an above-average year for growth in total economic activity.

Such government-produced fluctuations in housebuilding indicate that we have two types of credit control in Canada. One is general credit control in which the central bank varies the cash reserves of the chartered banks. The other is selective credit control which is applied to the N.H.A. mortgage market.

In periods when total spending plans appear to be insufficient to employ our resources the disrupted housebuilding industry is invited to hastily reorganize, and rush into production to take up the slack by building houses at a rate which may exceed the short-term market demand. Surely this is not the best policy of "orderly growth" which can be devised!

The marked contractions work hardships upon builders and the residential building trades. Many builders cannot shift from residential to non-residential construction, or at best cannot shift easily.

Similarly many workers in the residential building trades cannot apply their skills to other types of construction. Painters are not skilled at road-building nor electricians at bridge building.

Another cost of instability in housebuilding is the fact that labor-saving devices which have done so much to increase productivity in other industries are not readily applicable. They mean fixed costs.

Instability even discourages the research necessary to develop labor-saving devices which could be applied only to housebuilding. Instability in housebuilding perhaps also affects the cost of production of residential building materials.

Instability in housebuilding not only raises the prices of new houses for their buyers. The prices of existing houses are affected as well. Much of the demand for new houses arises from pressure upon the supply of existing houses.

Altogether the policy of destabilizing housebuilding appears to be very costly. It also appears that through control over N.H.A. lending the government could stabilize rather than destabilize this industry.

A free N.H.A. interest rate (free to go down as well as up) would ensure a private supply of mortgage money. Other terms of N.H.A. mortgages could be varied to offset changes in other factors—income levels, family formation — which affect housing demand.

While other reasons could be cited for antipathy toward increases in interest rates the main reason appears to lie in the fact that the costs to borrowers of such increases are obvious whereas the benefits are not.

It is time that we changed this attitude — not only in respect to N.H.A. loans, but in respect to other interest rates as well, including bank loans. This is only one change that we must make if the 20th century is to ever belong to Canada.

An untapped source of capital could provide funds to finance construction of 100,000 Canadian homes . . .

ELLIOT N. YARMON, president of Tankoos Yarmon Ltd., Toronto realty investment firm, made this proposal to the National House Builders Association, meeting in Toronto:

* * *

What I propose, in essence, is to set up the machinery whereby government guaranteed bonds may be issued for public sale, tapping whole new sources of mortgage funds, competing in the free money markets of Canada and abroad, pumping realistically-priced money into your industry through good periods and bad, whether it's a time of tight money or a time of loose money.

Within five years, $1 billion in new mortgage funds can be produced, and I am inclined to think this is a low estimate.

I am not proposing to alter the present system of NHA financing, but merely to add to it.

I am suggesting that a new, non-governmental mortgage lending organization be created, that would function from coast to coast in Canada.

This new corporate entity would operate under precisely the same rules and regulations that now govern construction and mortgage financing of NHA housing.

Its mortgage lending funds, however, would come from the sale to the general public of bonds fully guaranteed by the Canadian government.

The mortgage lending operations of this new body would be similar to those of conventional mortgage organizations — but its interest rates would fluctuate with local market conditions, and not be frozen at any arbitrary level as the NHA rate is.

This new institution would supervise construction and financing, make the mortgage loans and service them to their maturity.

Equity capital for the institution would be raised through stock subscription by each applicant for mortgage financing, in a fixed ratio of common stock to mortgage loan.

However, since the institution would be first and foremost a body created to serve the public interest, its profits would be strictly limited to a maximum of 6%.

This institution, able to borrow money at the very competitive rate of about 6% would be able to provide mortgage funds for the house-building industry at rates of approximately 6½% to 6¾%. And such an institution issuing government guaranteed bonds would attract the small man's savings thereby making new mortgage funds available.

What is needed for the success of this proposal?

First, government approval and support. With the proper safeguards, I see no reason why the government would not only be willing, but anxious, to give its support.

The second requirement is the organization. I can think of no better prime mover than the National House Builders Association.

The third requirement is the enthusiastic co-operation of the country's bond underwriters and investment dealers. Again I have no doubt that these firms, with their networks of sales offices across the country, would find these bonds attractive enough to do a big merchandising job on them.

With such an institution, operating efficiently, what would be the effects?

Substantial new sources of capital would be made available to the house building industry.

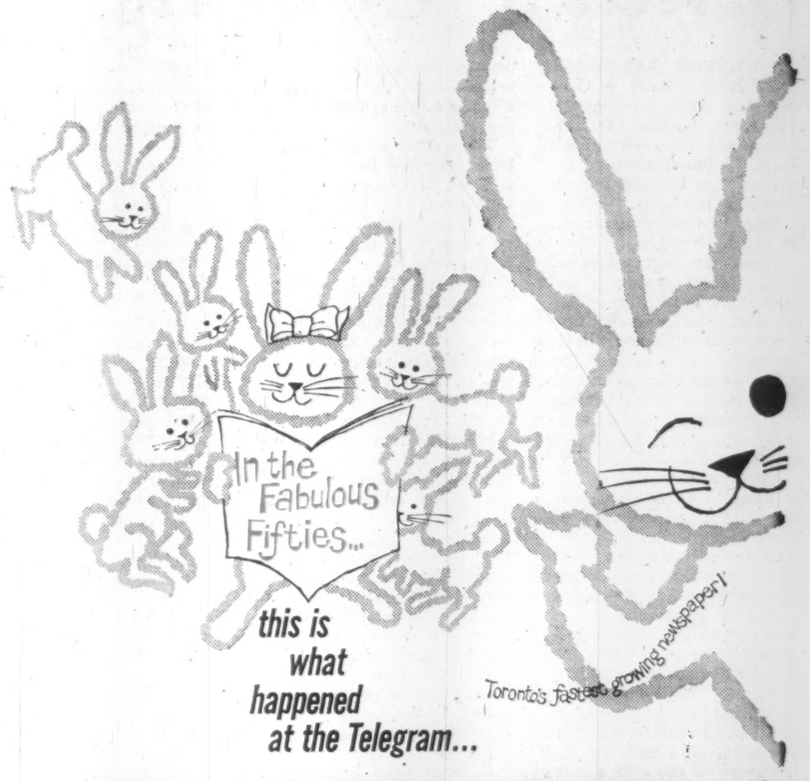
Mortgage loans would be readily made because interest rates would be free to seek their natural level.

These mortgage funds would be available to builders anywhere in Canada.

It would provide a highly attractive investment possibility for small investors — those people with $500, $1,000 $10,000 — earning 3 to 5% in banks and trust companies today. These people represent huge blocks of capital. The chartered banks and trust companies have over $7.5 billion in their savings accounts.

These bonds would further appeal to Canada's multi-billion dollar aggregate of pension funds, which are now only beginning to dip their toes into real estate investments as part of a balanced portfolio.

These bonds would be attractive to substantial foreign sources. Here is one type of foreign investment in Canada that should be acceptable from all points — foreign funds in this type of bonded indebtedness is one kind that everyone agrees does not exercise any control over our economy.



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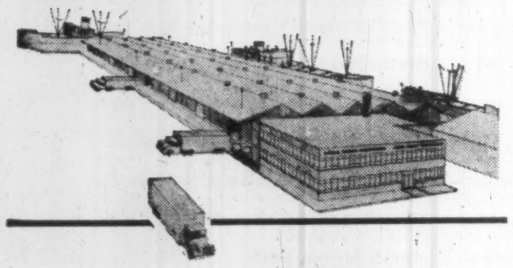

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What's Coming Next on Columbia?

By MICHAEL BARKWAY

OTTAWA (Staff) — Canada has one fundamental reason for thinking the U. S. will accept the International Joint Commission's plan for sharing the development of the Columbia basin.

It is that Americans like bargains.

When the advantages of using Canadian storage and regulation are fully understood, it is believed that economic common sense will do the rest.

If it doesn't, it can only be (in Ottawa's view) because both economics and common sense are overruled by short-sighted politics.

The questions:

- **Even in an election year,** can politics override the northwestern states' urgent need for all the hydro power they can get, as soon as they can get it and as cheaply as it can be produced?
- **Can hungry contractors,** or ambitious U. S. Army Engineers, persuade anybody — in face of this need — that they should be allowed to build U. S. projects which at the best could produce half the power at more than twice the cost?

The economic advantage of Canadian storage is on a scale that few people have yet grasped in either country.

It is more than four-to-one compared with the best U. S. could do for itself. (See table on this page.)

So when the U. S. section of the International Joint Commission agreed (with the full knowledge and consent of the U. S. administration) to return half the extra power to Canada, it knew that it was still doubling everything the northwestern states could get by any other means.

If such a chance were rejected, the biggest loser would be the Pacific Northwest of the U. S.

But Canada would suffer serious losses, too.

Ottawa makes no bones about that.

Like any fair bargain, the IJC plans help Canada.

In particular, they will:

- **Enable the Columbia to be fully regulated** in Canada, far sooner than our own power needs could justify.
- **Make it possible to instal** — and at least partly to pay for — the key dam at Mica Creek well ahead of B. C.'s needs, so that it is ready when the growth of power demand justifies transmission to the lower mainland.
- **Give B.C. additional power,** in the meantime, from Canada's half share of the extra power generated in the U. S.
- **Remove all arguments** about exporting power to the U. S. "temporarily", with the risk of not being able to recapture it 20 or 30 years hence.

The plan calls for no export of power from Canada.

It gives the U. S. no unlimited future commitment.

It leaves the way clear to divert the Columbia's flood waters into the Fraser, if Canada wants to divert after, say, 35 years.

Thirty-five years is the term proposed for the Canada - U. S. treaty on the Columbia.

The diplomats are already preparing for the treaty negotiations.

Moreover, the latest projections by the IJC experts suggest that 35 years hence — which is the earliest time Canada is expected to need the Fraser diversion — the U. S. may have no cause to object.

By that time water storage will be far less important to it, because hydro will be rapidly lapsing into a "peaking" role.

Some of the most important of the calculations on which Canadian and U. S. sections of the IJC have been working in complete agreement are made public here for the first time.

They provide a vital key to the IJC's three general principles, seven power principles and six flood control principles.

Without such a key the "principles" remain difficult and obscure.

Three main clues are necessary to understand the new phase of the debate about the Columbia:

- **Benefits are to be shared without regard to costs: i.e. gross, not net.**

This means each country will pay for all the works done in its own territory.

The return it gets will depend on the benefit produced by the works, not on their cost.

This is vital for Canada, though only a ministerial ruling at the last minute lined up all Canada's experts in support of it.

- **The most efficient and economical projects shall be built first.**

This is the IJC's general principle no. 1.

Since Canada, as the dominant upstream state, can provide storage and regulation more efficiently and more cheaply than the U. S., Canada's primary interest is that the U. S. shall get "the most-est for the leastest".

In the forthcoming intergovernmental negotiations, Canada will probably ask for recognition as supplier of at least the first 17 million acre feet of storage.

This includes 11.6 million at Mica Creek, plus at least 3.1 million for Murphy Creek and the Arrow Lakes (the "Low Arrow project"), and 2.3 million acre feet at the upstream Copper Creek-Luxor storage site.

If the Kootenay is diverted, Canada's storage would be even larger.

- **Canadian and U. S. needs can be dovetailed.**

The Pacific Northwest states need firm hydro power most urgently now and for the next 20-30 years.

B. C. cannot use the full Canadian potential of the Columbia for another generation.

The IJC plan makes it worth while for Canada to develop its part of the river now when the U. S. has most need of it, without alienating resources which B. C. will want for itself within the next three to four decades.

In this general framework, the IJC studies and "principles" provide a considerably more detailed scheme for equitable division of the benefits of co-operative development.

Here are some of the most important, under the same three general headings:

▸ **Costs and benefits.**

One of the longest and most crucial arguments throughout the last year's IJC discussions was on the simple question: "Net or gross?"

The "netters" were led by the U. S. Army Engineers, who wanted Canada and U. S. to pool their development costs and then divide the "net" benefits.

At first, this seemed to make sense for Canada, since we are more likely to be short of capital.

Right through until the final ministerial decision in December, many of Canada's economic experts remained "netters".

The "grossers", led by General McNaughton, believed that "netting" meant "using a rubber scale without an index".

They said it was an invitation to inflate costs, and an ideal opportunity for the U. S. to whittle down Canada's claim to benefits.

The IJC's Chicago meeting in March, 1959, brought a dramatic example.

The chief of the U. S. Army Engineers, General Itschner, proposed including U. S. costs to cover every plant built on the Columbia in the last 20 years.

This would have more than doubled the bill to be deducted before any benefits were divided.

Then he had another idea.

He proposed to scale up U. S. costs from the amount actually spent to the current level of prices.

The detailed figures are shown on this page.

If this was the result of "netting", Canada's share of downstream benefits would have been reduced from 50% to nearer one third.

Howard Green, the federal minister most concerned with the Columbia problem (both as a Vancouver MP and as External Affairs minister), got another warning from B. C.

The B. C. government went through the "netting" exercise when it was negotiating about the ill-advised and abortive Kaiser Dam project.

They discovered it was a quick way to lose your shirt, and strongly recommended Ottawa to insist on "grossing".

So, the "grossers" won the day, though not until the very last lap.

At the final IJC meetings last month the Canadian section insisted that each country should pay its own costs. They won the agreement of the U. S. section. And this is what the report unanimously recommends.

Even without General Itschner's ingenious attempt to add pre-existing costs — which the U. S. commissioners would neither support nor repudiate — Canada has every incentive for handling its own costs.

Canada can provide twice the storage for half the cost of any possible U. S. developments.

The figures shown in the principal table on this page ("Storage and Costs") are the very heart of the plan agreed upon by the IJC.

The case for co-operative development of the Columbia largely rests on them.

They mean that even when the U. S. has returned half the new power resulting from Canadian storage it still gets more power than it could produce itself — and for half the cost.

▸ **Priority for most efficient projects.**

The very first "general principle" laid down by the IJC is that "new storage and new downstream power facilities . . . be added in the order of the most favorable benefit-cost ratio."

Co-operative development of the Columbia, says the IJC, "requires" that this be done "to the extent it is practicable and feasible".

It is common ground now that Canadian storages are the most useful and economic and the key project is the huge Mica Creek dam, which would hold nearly 12 million acre feet.

The benefit-cost ratio for Canadian projects is 3.0-3.5:1.

For projected U. S. storages it is less than 1:1.

The controversial Libby Dam, for example, gives a ratio of 0.85:1.

It is condemned without reprieve by the application of this principle.

But the amount of extra power you can get from each additional storage depends on:

How you use it.

When it is put in.

The IJC's power principle No. 1 is that Canada shall operate its storage on the basis of "an assured plan of operation".

That's the only way to ensure that the U. S. downstream plants get the maximum addition to their dependable capacity, which is the first consideration.

It also is to Canada's interest, because our only recompense comes in the form of half the extra power generated in U. S.

The operating plan, IJC also says, must be long-range. It should apply for the whole period of the agreement, unless new conditions lead to agreed changes.

The agreed long-range plan is also necessary to assure Canada what return it will get before it starts building the dams.

This is IJC's power principle No. 2.

But no one can estimate the benefits due to new storage without deciding, first, what "base system" the newly regulated flow is working on and, second, in what order new projects are to be credited.

IJC defines the "base system" to be used if Canada-U. S. negotiations can be started soon. It says this should be changed only if negotiations are delayed until major alterations have occurred in river conditions.

The list:

Project	Storage m.a.f.
Kootenay Lake (Canadian) ..	673,000
Hungry Horse	2,983,000
Flathead Lake	1,217,000
Albeni Falls	225,000
Coeur d'Alene Lake	5,072,000
Grand Coulee	676,000
Chelan	1,034,000
Brownlee	....
	13,032,000

But until then demand is not big enough to justify capital costs of up to $1,000 million for dams, generating plants and transmission lines in B. C.

Because of this timing problem, the Gordon Commission proposed abandoning Canada's traditional ban on the export of power and taking a chance on recovering it when we need it.

Their recommendation was echoed in last summer's debates on the National Energy Bill.

But many Canadians remained skeptical about the possibility of retrieving any power source once it has been committed to export.

The IJC's plan offers a way of escape.

It shows Canada's need for power timed rather neatly behind the biggest U. S. needs and it provides a way to meet U. S. needs at their most critical time without risking our own future supplies.

The key to this lies in the changing balance between hydro and thermal or atomic power.

Within about 25 years the power needs of the Pacific Northwest states will be almost double what they can get from hydro.

If fullest use is made of all available Canadian storage, the maximum dependable power obtainable for the U. S. from the Columbia basin is about 13 million kw.

The ICRBE put it between 12.6 million and 12.9 million kw in critical years of low flow, and between 13.5 million and 13.9 million kw per year over an average 20-year period.

Canadian storage, incidentally, will contribute more than half of this dependable power in critical years and about 40% on the average.

By the 1990s, hydro will be contributing only about one third of the total needs.

By the year 2010 more than three quarters of the estimated needs must come from thermal or atomic plants.

So long as hydro power is the main component in any power system, the way to economize is to get the maximum possible dependable supply.

The primary importance of storage is to even out the flow so as to carry a higher continuous base load.

But once thermal power has to be used to carry a third or a half of the total output, it pays to supply base load from thermal plants working continuously.

This will be even more true of atomic plants.

Hydro, which is easily switched on and off, then becomes the supplementary source of peaking power.

(This is why, for example, Australia is building the $1 billion Snowy Mountains project with a planned load factor of only 24%.

(Its function is to take the peaks, leaving the thermal plants to operate in their most economical way — with continuous load.

(It explains why hydro installations have been built in Scotland where there is only enough water to give a load factor of 16%.)

This situation will arise in the Pacific Northwest states sometime in the 1990s, according to present forecasts.

Which means that U. S. interest in the maximum possible regulated flow of Columbia water will be rapidly diminishing by then.

And that is when B. C. will be interested in getting the largest dependable capacity from the Columbia.

Timing Storage Values

The "storage credit", on which Canada's return of power will be calculated, depends on the order in which new dams are "considered to be added" to the "base system".

The following table shows the importance of this theoretical order. Canada's return for each new storage dam depends entirely on the increase in power output it provides at U. S. plants downstream. This increase depends on whether the storage is "considered to be added" early or late in the procession.

	Total storage capacity (Million-acre-feet)	Storage added	Power added ('000 kw)
Base system	13	..	6,300
First million a.f. added	14	1	200
Mica Creek, if added first	24.6	11.6	1,800
Average per million a.f., up to 25 m.a.f.	24.6	1	154
First million a.f. after 25 m.a.f.	24.6	1	80
First million a.f. after 45 m.a.f.	45	1	45

(Source: Unpublished IJC Calculations.)

Hydro or Thermal?

Projected power requirements of Pacific Northwest States:

	Need (Million kw)	Source
1957	5.4	Almost exclusively hydro.
1975	16	Total hydro potential is, at best, about 13 million kw.
1985	23	Must be almost half thermal or atomic.
2010	56	Must be predominantly thermal or atomic.

Storage and Costs

Here are the figures at the heart of the power-sharing scheme.

The cost advantage of using Canadian, rather than U. S. storage, is better than four to one.

Canada can provide more than twice the power for less than half the cost.

These figures show at a glance why it pays the U. S. to make maximum use of Canadian storage and return half the power to Canada.

U. S. use of even half the power gives double the cost-advantage of any development without Canada.

	U. S.	CANADA
Total storage capacity available for development ...	12.6 million acre ft.	26.4 million acre feet
New at-site power from new dams	2,214 mws	1,986 mws.
Cost, including storage and at-site power plants	$1,338.6 million	$659.1 million
Over-all cost per million acre-feet (plus associated at-site power)	$106 million	$25 million
Ratio of Canadian to U. S. costs:	1 : 4.24	

(Sources: International Columbia River Board of Engineers, and U. S. Army Corps of Engineers.)

Some Costs Of Project

When IJC discussions were still concerned with the idea of pooling development costs in the two countries, at a meeting in Chicago in March, 1959, General Itschner put forward this estimate of U. S. costs to be charged to the joint account.

He was not supported by the U. S. commissioners, but neither would they publicly repudiate his claim.

These are annual charges, worked out on a theoretical amortization over 50 years at 5%.

- **Cost of extra generating capacity** necessary to take advantage of regulated flow from Canada: $2,800,000 p.a.
- **"Sunk costs",** covering extra facilities to be installed at new plants in anticipation of Canadian regulation: $152,000 p.a.
- **One half of transmission costs** from plants to load-centre, and from load centre to the Canadian border: $7,580,000.

Total: $10,532,000.

(Canada just might have accepted this much. But General Itschner wasn't finished.)

- **"Attributed costs":** i.e. original cost (amortized on the same basis) of existing plants which will benefit from Canadian storage: $13,122,000 p.a.
- **Escalation of "attributed costs"** by increase in price level since original construction: $3,808,000 p.a.

Grand Army total: $27,462,000

For comparison, this is how Canada's costs would have been charged to the joint account for the mammoth Mica Creek Dam, key to the whole development:

▸ **Cost of construction** (amortized on the same theoretical basis): $12,444 000 p.a.

▸ **Transmission costs** from U. S. border to Vancouver (whole cost): $7,100,000 p.a.

▸ **Deduct as a Canadian benefit** the at-site power at Mica: minus $3,090,000.

Total chargeable: $16,454,000 p.a.

Canada's "storage credit" will be calculated according to the extra power its power adds to this.

But there's another difficulty.

The first additions to storage always add more than later ones, even if later ones are larger and of greater long-term value.

The outstanding example, again, is Mica Creek.

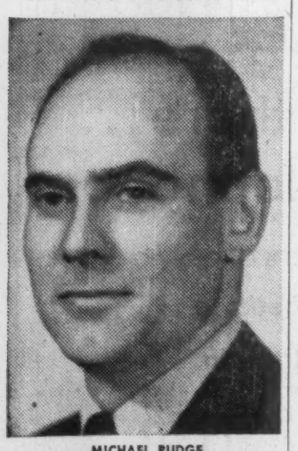
It might take 10 years to build and during these 10 years half a dozen smaller projects might be brought into operation, and given credit for extra power.

"A small project undertaken for (some) immediate consideration," says IJC, "might jeopardize an eventual development of far-reaching beneficial consequences."

Therefore, Canada's "stor-

ANNOUNCEMENT

CHEMCELL APPOINTMENT



MICHAEL RUDGE

The appointment of Michael Rudge as manager, Development Department, has been announced by Robinson Ord, president of Canadian Chemical Company, Limited.

Mr. Rudge joined the company in 1955 to undertake market research and technical studies. In his new position his responsibilities will also include the co-ordination of company planning for expansion and diversification.

ANNOUNCEMENT

CHEMCELL APPOINTMENTS

JAMES A. STENSTROM STANLEY McCREADY

The appointment of James A. Stenstrom to the newly created position of director of marketing has been announced by Robinson Ord, president of Canadian Chemical Company, Limited. Mr. Stenstrom has been sales manager since joining the company in 1951.

Stanley McCready who joined Canadian Chemical in 1952 as manager, Central District in Toronto and has since 1958 been assistant sales manager of the company in Montreal, has been appointed sales manager.

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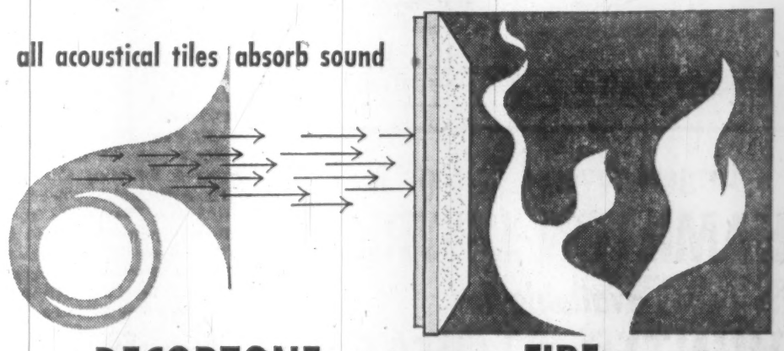

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WRITE OR PHONE FOR TECHNICAL INFORMATION

U. S. Budget Has Lots Of Posers for Canada

Here's a look at the whopping financial rundown and what it means to our defence and our economy . . .

From Our Own Correspondent

WASHINGTON — The new U. S. budget presented to Congress this week presents Canada with as many questions as it does answers:

- **Does the funding for Bomarc B missiles,** scheduled to be largely finished by June 30, 1961, mean a cutback in Bomarc even larger than feared when the Master Air Defence Plan (MAD) was presented last June?

- **The U. S. budget gives de Havilland** a production order for its short - take - off - and - land Caribou transport but the key point is, how many? One thing is certain, this is not a big production order.

- **Does cancellation of the second generation** of the Lacrosse missile mean the Canadian Army will not get this missile?

- **Does the money made available for Sage** indicate it, like Bomarc, may be reduced from the role it was intended to play under the Master Air Defence Plan of last June?

- **Does the apparently growing emphasis on offensive** as against defensive weapons systems indicate Canadian firms in the years ahead will not get the subcontracting business anticipated when there was more budgetary concern and Canadian real estate involved in air defence equipment?

- **Does the budgetary provision for an "on the shelf" airborne alert,** which would mean bomb-laden SAC bombers flying constantly over Canada, need to have a similar "on the shelf" Canadian agreement to permit this?

- **Does the budgetary emphasis on the President's "Food For Peace" program** and on the U. S. wheat surplus indicate a new and larger drive for unilateral dumping of wheat surpluses which would hurt Canadian sales?

Few, if any, people in Washington know the answers to these questions. But the answers will be forthcoming over the next couple of months during the appropriations hearings before the various senate and house committees.

By next spring, those answers should be made public.

Not until then, will Canada know the implications of the U. S. fiscal 1961 budget on Canadian defence planning.

The question relating to U. S. wheat disposals is expected to be answered in the affirmative unless more vigorous use is made of the un-oiled international consultative machinery.

Pressure is on the Administration to move out the surplus wheat and this pressure will be hard to resist.

Extension of the surplus disposal law will come next year when a new administration is bound to look more favorably on wider surplus disposals.

Taking the questions in reverse order, the question of whether Canadian consent would be needed for a U. S. airborne alert might take on some significance with the prospect of hydrogen bomb carrying SAC bombers constantly flying from their U. S. bases up over Canada to the "fall-safe" line in the Arctic and back again.

Ottawa now gives what amounts to automatic permission for U. S. planes carrying nuclear weapons to fly over Canada. Presumably this permission could be extended to cover an airborne alert of SAC. But on the other hand, the country might want to reconsider.

For some months now it has been evident that Pentagon thinking has been shifting more to beefing up the offensive retaliatory forces instead of the defensive forces.

The $14 billion price tag for an extensive Nike Zeus anti-missile missile system has forced Pentagon second thoughts. Such a sum can buy a lot of offensive hardware like the Atlas, Titan and Minuteman ICBMs.

Despite the behind-the-scenes efforts of NORAD boss Gen. Laurence Kuter, he has been fighting a losing battle in trying to get Washington to put more money into defensive equipment.

He lost in the Nike-Zeus fight where he wanted this weapon as soon as possible, but the budget calls only for more development.

He lost in his request for more Bomarcs and he has lost in his effort to get more modern aircraft such as the F-108 in the air defence squadron.

His most recent defeat was the presumably mortal blow by the budget bureau which knocked the B-70 in the head. He had hoped it might have been used as an air defence interceptor ranging far up in the Arctic, as well as being used in its more usual offensive role.

This offensive versus-defensive fight will be carried on in the Congress, but chances of victory there for NORAD supporters are as poor or poorer as they were in battling the budget bureau and President Eisenhower's insistence on a military spending lid.

For Canada, the significance of all this is that much of the U. S. rationalization for the defence production sharing arrangement depended on Canadian real estate being used for defensive equipment like Bomarc and Nike Zeus.

Canadian industry has thus far had little subcontracting business out of the offensive weapons like Atlas, Titan, Minuteman or the B-52s and their Hounddogs.

The Master Air Defence Plan presented last June represented a significant downgrading for Sage and ever since there has been serious speculation in Washington as to the future of the semi-automatic ground environment system which guides missiles and planes to their air-breathing targets.

Officially, Washington says the new budget does not change the future of Sage any more than it was changed by the MAD Plan but, in private, many an official wonders where Sage will be a year from now.

At least, some observers note, Sage can become a highly valuable tool in controlling civil aviation. Canada, as well as the U. S. could make good use of Sage in this fashion if the budgetary worst came to the budgetary worst.

On the Lacrosse missile, there is hardly a single responsible source around that will bet a lead nickel on the chances of the Canadian Army getting any large numbers of the missile.

Despite the cold weather tests going on this winter at Churchill, the cancellation of the second generation of Lacrosse appears to most observers as one of the final nails in the Lacrosse coffin insofar as widespread use in the Canadian Army is concerned.

One solid piece of good news in the U. S. budget was the Army decision to buy the 32-passenger transport plane, the Caribou, produced by de Havilland. The Pentagon in the fall of 1959 bought five of these aircraft for testing and evaluation and found them to its liking.

An order for a further seven came last weekend.

However, army generals, greedy as they always are for something a little better, now want a short-take-off-and-land plane like the Caribou which can carry a much heavier load.

In fact, army research and development officers were raked over congressional hot coals a year ago for not being more advanced in their evaluations of STOL planes that can carry a bigger load than the Caribou.

Their answer at that time was that they "had to walk before we can run".

For this reason, it is felt the "buy" of the Caribou in fiscal 1961 will be relatively small.

The budget does not say how many will be purchased, nor does the Army.

One clue in the budget, however, says the Army will buy 219 planes in fiscal 1961 including the Caribou, the Mohawk, an observation plane, and helicopters Iroquois and Chinook.

Early guesses in Washington suggested the buy would be between 20 and 50 planes.

Meanwhile, however, it provides a few million dollars for the Canadian aircraft industry. The cost of the Caribou is $550,000.

The question open to the juiciest speculation in the entire U. S. budget, however, relates to the Bomarc missile.

All the money provided for in the U. S. fiscal 1961 budget for Bomarc concerns the B missile. In these funds is the money to buy the B missiles for Canada's two bases.

This does not necessarily mean, however, that Canada now definitely will get these missiles. Orders can be canceled with considerable speed and have been in the past.

In the U. S. budget there are three widely separated passages in which the Bomarc is discussed which have produced considerable wonderment.

Here they are:

▸ **On page M22 of the President's message, it says:** "Although some $17 billion has already been invested in defence systems against manned bombers, excluding the cost of personnel and operation and maintenance, certain segments have yet to be completed. These were described in the Department of Defence air defence plan presented to the Congress last year.

"The funds recommended in this budget substantially complete the programs outlined in that plan. Specifically, the last major elements of the Nike-Hercules surface-to-air missile program will be financed in 1961 and the Bomarc interceptor missile program will approach completion."

▸ **On p. 437, it says:** "Funding for the Bomarc and Nike Hercules air defence missiles will largely complete the procurement program."

▸ **On p. 478, it says:** "The Bomarc air defence interceptor missile (procurement) will be continued at a level slightly higher than in 1960."

On questioning by FP, Pentagon budget experts said the 1961 funding means that little or no money will be provided for any Bomarc missiles after June 30, 1961.

They also told FP the fiscal 1961 funding will provide for as many Bomarc squadrons as called for under the Master Air Defence Plan.

That plan, as presented last June, called for 18 Bomarc bases in the U. S. and two in Canada —one in northern Ontario and one in Quebec.

Only four Bomarc squadrons are slated to be operational by the end of this coming June and only eight by the end of June, 1961.

Thus the new U. S. budget would have to contain a huge amount of money to provide all the missiles needed for the rest of the 18 Bomarc squadrons.

But does it? The Pentagon budget people say it provides for all the missiles needed under the MAD Plan, but they will not say whether this means 18 squadrons or fewer.

Under the MAD plan last June, the Pentagon chopped more than $730 million out of the Bomarc program.

Relatively small cuts were made in the buying for fiscal 1959 and fiscal 1960.

The big cuts were to come in fiscal 1961, and thereafter. But according to the U. S. budget, there is not going to be any "thereafter".

It is possible that all the buying originally planned for the years after 1961 is now being bunched into 1961.

This, however, is questionable since the budget also says procurement during the year will be only slightly higher than in the present year.

The other possibility is that MAD Bomarc spending has been further reduced.

Out of the huge maze of conflicting and confusing facts and figures on Bomarc, one thing is clear.

Bomarc has begun to slip. How fast it slips remains to be seen. It is not beyond the realm of possibility that it will slip so fast, Canada may not get its Bomarc B missiles for our Ontario and Quebec squadrons.

Whether we get them or not, it will be a close race. And the new U. S. budget offers not too much comfort to Canadian defence planners who have put all their eggs in the Bomarc basket after the cancellation of the CF-105 Arrow a year ago.

Company Report

GUARANTY TRUST CO. OF CANADA, Toronto, net profit of $683,220 for 1959 was 34% higher than 1958 net of $509,523.

Earnings, deposits and total assets were the highest in the company's history, President J. W. Berry reports.

Assets under administration increased $33,912,000 to $220,409,462.

Deposits by the public amounted to $81,421,728 at year end, compared with $63,706,222 a year earlier.

Annual meeting is Jan. 28.

As at Dec. 31:	1959 $	1958 $
Liabs. to public*	81,802,945	63,964,012
Sh'holders' equity	7,017,413	5,614,194
*Secured by:		
Mortgages	40,349,873	30,997,149
Office premises	1,245,903	1,211,243
Liquid assets*	47,224,582	37,369,814
Total	88,820,358	69,578,206
*Includes bonds and stock.		
Estates account	131,589,111	116,919,026
Net profit	683,220	509,523
Earned per share	$1.95	$1.70
Paid	0.80	0.80

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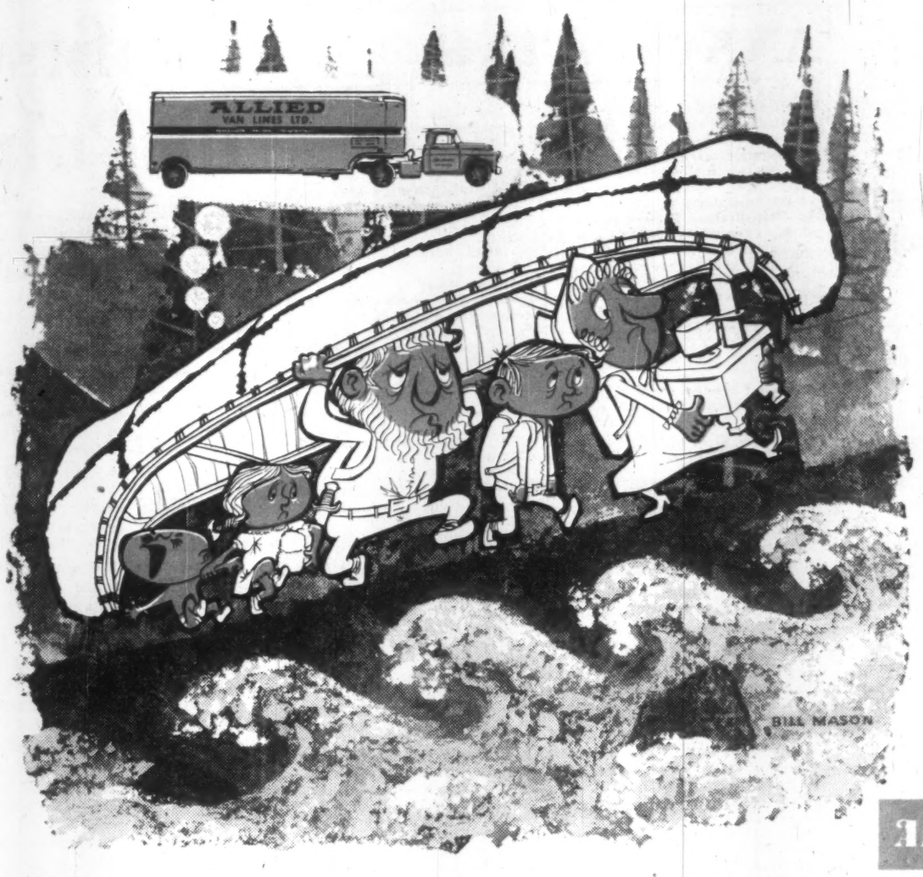
WILBUR WRIGHT

Mr. Robert H. Morse III, President of The Canadian Fairbanks-Morse Company Limited, announces the election of Mr. Wilbur Wright, P.Eng., as Vice President—Engine and Pump Division. In this position Mr. Wright will have national responsibility for the application, sales and service of the Company's full line of diesel engines and hydraulic equipment. Upon graduation in Mechanical Engineering from the University of Saskatchewan in 1934, Mr. Wright joined the Vancouver Branch of the Company, where he rose to be Manager of the Engine and Pump Department. He served for 3½ years with the Canadian army overseas and was discharged with the rank of Captain, R.C.E.M.E. After the war he returned to the Vancouver Branch in his previous position, prior to being appointed Manager of the Company's Engine, Pump and Electrical Division in Montreal in 1958.



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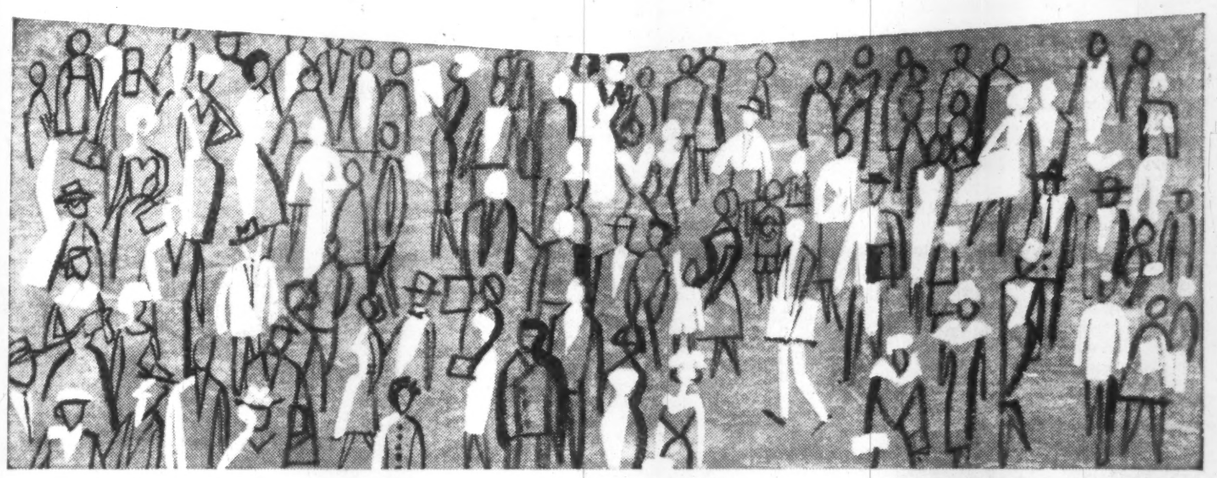

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Nuclear Firms Assured Market

Nuclear manufacturers have an assured market of an average of $34 million annually . . .

By DAVID FRANCIS

Uranium mining in Canada is going to the dogs.

But the nuclear manufacturing industry can look forward to a growing and substantial market.

This picture became apparent at the First Canadian Conference on Uranium and Atomic Energy in Toronto last week.

J. Lorne Gray, president of **Atomic Energy of Canada Ltd.**, said the manufacturers have an assured market for an average of $34 million annually during the next five years, slightly higher than they had expected.

The figure includes $10 million a year for the Chalk River project, plus $120 million spread over five years for the power reactor program.

Expenditures on the power reactor project this year will total $5 million and will be stepped up next year to $15 million or $20 million. Gray said during a panel discussion on the future of the Canadian nuclear manufacturing industry.

Existing Canadian plants can meet any foreseeable demands for nuclear equipment, he added.

"Canadian industrial organizations cannot, as yet, afford to develop a specific nuclear reactor concept on their own at their own expense," Gray said.

"There is not enough business to allow them to set aside the large sums of money necessary for reactor development."

Therefore Canadian manufacturers must rely on government support or licensee agreements from an associated company, he said.

"I have no doubt whatsoever that Canadian companies will resort to the licensee route to supply nuclear equipment as soon as any of their parent or affiliated companies have demonstrated that a particular type of equipment can be offered on a commercial basis and can economically meet the needs of a customer."

Ian McRae, chairman of the board, **Canadian General Electric Co.**, said the volume of nuclear business should be sufficient — if it is carefully placed — to enable the manufacturers to maintain operations on a satisfactory basis.

"Nuclear power is technically feasible now, and as soon as competitive costs can be demonstrated, it will take its place as a major power supplier in our country.

"Our analysis of the potential cost of nuclear power costs from other sources have convinced us that atomic power will be competitive within the next few years."

However, there are no quick profits to be made McRae said.

Companies entering the field should first make a thorough study of the potential market, and then base their plans on the long-term future.

Another member of the panel, G. L. Wilcox, president, **Canadian Westinghouse Co.**, said that Canadian industry has gained valuable experience in nuclear manufacturing over the last 15 years.

Nevertheless, the value of the actual output of hardware in this period was about the equivalent of a week's output of the domestic manufacturing industry, he said.

Wilcox suggested that nuclear power may enable the northern area of Canada to make a significant contribution to the economy without the privation and human suffering usually associated with existence in the far north.

Canadian Westinghouse, he said, has made studies on units ranging in size from 500 kw to 10,000 kw in electric output but which have a thermal output of 2,000 kw to 40,000 kw.

"This heat would be a welcome byproduct for many months of the year and, in addition to space heating, would be available as process heat for industrial purposes.

"The studies that have been made on this range of small reactors indicate that at present they would not prove to be competitive with other sources of energy except perhaps in highly specialized applications or in the most remote and difficult areas to reach by transport."

Expected cost of a 10,000 kw reactor: $8 million, more than double an oil-fired installation.

This reactor could supply light and heat to a community of 5,000 people, or an airport and staff the size of Goose Bay, Labrador.

Throne Speech Indicates Record Manitoba Budget

From Our Own Correspondent

WINNIPEG — The Manitoba government plans record spending in the 1960-61 fiscal year, according to the Throne Speech delivered at start of the legislative session Jan. 19.

The main estimates when tabled will be well above $90 million, likely in excess of $95 million but with sufficient estimated revenues to avoid tax increases.

A new $140-million hydro development will be built at Grand Rapids to be completed within five years.

There will be no cutback in expenditures for education, health, welfare, resources development, tourist promotion, or highway construction, all of which last year were a record.

Most important legislation:

- **A bill to set up a metro government** for Greater Winnipeg.
- **Some measures to implement** the recent report of a Royal Commission on education.

Among other things the commission proposed government help for parochial schools.

Provincial grants for education will be a record $31 million, up at least $5 million over what was voted a year ago.

Another large highway program is proposed for 1960 to include improvements and extension of the trunk system; more access roads and continuation of the roads-to-resources program.

For agriculture the government undertakes "to continue efforts to deal with the cost-price squeeze".

A program will be initiated to assist installation of water supply and sewage disposal systems in farm homes.

More money will be asked for flood control.

The province will propose new methods for removing inequities in the freight rate structure which adversely affect Manitoba industry and agriculture.

In his budget speech a year ago, Roblin forecast a surplus of nearly $5.4 million for the 1959-60 year — main expenditures $84.6 million, revenues $89.9 million.

His surplus included a carryover of a $3.7-million surplus for the previous year.

In addition there was $28.7 million asked for capital supply for general purposes and another $7.7 million capital for loans and advances, bringing total expenditures to $121 million.

Even though main expenditure estimates this session may exceed $95 million, not including capital borrowings, there are anticipated revenues to meet them.

Biggest part of the increase will come from the federal-provincial tax agreement.

A substantial amount will come from liquor profits and sizable increases will come from gasoline tax and motor vehicle registrations.

Roblin still has a comfortable house majority.

The party standing: Conservatives 35, Liberals 11, CCF 10, Social Credit one.

Record Year For Beet Sugar Crop

Chatham plant of **Canada & Dominion Sugar Co.** finished one of the longest operating periods on record this week (102.8 days) after handling over 300,000 tons of sugar beets.

Company's Wallaceburg plant completed processing operations Jan. 3; it handled almost 200,000 tons of beets this season.

The two plants processed a total of 463,000 tons the year before.

The 1959 crop year set new records for tons produced and yields per acre, company says. Over 503,000 tons of sugar beets were harvested from 34,000 acres, yielding 14.7 tons per acre.

Previous best yield was 14.65 tons per acre in 1958.

ANNOUNCING

important appointments in Canadian Industry, Finance, Business and Government

American-Standard Products (Canada) Ltd. (Toronto) — W. Peter Barker, eastern district manager, **Kewanee-Ross Products.**

M. L. Baxter Ltd. (Toronto)—M. O. Messenger, vice-president, sales; J. Malone, sales supervisor.

The British Drug Houses (Canada) Ltd. (Toronto) — Patricia E. Habgood and G. H. Fedyk, join pharmaceutical research department.

S. W. Caldwell Ltd. (Toronto) — Sydney Banks, director.

Calgary Television Ltd. (Calgary)—A. M. "Bert" Cairns, vice-president and general manager of CHCT-TV.

Canadian Chemical Co., Ltd. (Montreal)—Vincent T. Anwyll, general manager; J. C. Langford, vice-president; Paul E. Gishler, director of research; James A. Stenstrom, director of marketing; Michael Rudge, manager, development department; Stanley McCready, sales manager, Montreal.

Canadian Fairbanks-Morse Co. Ltd. (Montreal)—Wilbur Wright, vice-president, engine and pump division.

Canadian Ice Machine Co. Ltd. (Toronto)—Ralph E. Goldring, branch manager covering the province of Saskatchewan; Robert T. Crawford, manager for the southern Alberta district.

Canadian Industries Ltd. (Montreal)—Edmund Almond, automotive sales manager, fabrikoid division.

Canadian Institute of Chartered Accountants (Toronto) — R. D. Thomas, executive secretary and director of research.

Canadian National Railways (Montreal) — Charles E. Dobson, assistant freight traffic manager in charge of rates, tariffs and divisions.

Canadian Petroleum Association (Calgary)—James Blakely Corbet, general counsel.

Cerametal Industries Ltd. (Streetsville, Ont.)—Joseph L. Wingfelder, general sales manager.

The Consumers' Gas Co. (Toronto)—John Gifford, personnel director.

Craig Construction Equipment Co. Ltd. (Ottawa)—J. W. Brett, vice-president and director, functioning primarily as comptroller and Federal Government representative.

Crush International Ltd. (Toronto)—Ralph B. Brenan and Percy M. Fox, directors.

Editorial Communications Inc. (Montreal)—Bert Prime, director of the newly formed publication division.

Elder, Donaldson & Crofts (Toronto)—George Ovens, appointed to the organization.

Equitable Life Insurance Co. of Canada (Waterloo, Ont.) — H. E. Power, director; L. J. Hamel and D. G. Seebach, company officers.

Federated Council of Sales Finance Companies (Toronto)—E. Michael Howarth executive vice-president.

Ford Motor Company of Canada, Ltd. (Toronto) — J. F. Kennedy, director of passenger car marketing; A. E. Thompson, director of truck marketing; H. G. Ronson, fleet marketing manager.

Foster Wheeler Ltd. (St. Catharines, Ont.)—J. E. Neilson, president and chief executive officer.

J. B. Fraser Executive Placement Consultants Ltd. (Toronto) — R. G. Bennett, director of executive placement, Montreal.

Fraser Valley Milk Producers Association (Vancouver)—L. A. Atkinson, general manager.

Fruehauf Trailer Co. of Canada Ltd. (Dixie, Ont.)—E. G. Collard, general service parts depot manager for Canada; F. G. Howard, central service parts depot manager.

Furness, Withy & Co. Ltd. (London, Eng.)—P. V. O. Evans, manager, Montreal office; F. G. Hatcher, manager, Halifax office; V. S. Northrop, manager, Saint John, N.B. office; E. A. Round, import freight manager, Montreal.

Haddin, Davis & Brown (Manitoba) Ltd. (Winnipeg) — Allan G. Moffatt, director.

Hill-Clark-Francis (New Liskeard, Ont.)—L. E. Bainard, manager of Sudbury branch.

Ingram & Bell Ltd. (Toronto) — G. A. Cornelius, manager, Vancouver branch.

Kelly, Douglas & Co. Ltd. (Vancouver)—Nabob Foods Division—E. L. Bullard, director of marketing; M. C. Smith, Canadian sales manager; C. R. Speers, branch manager, Toronto.

Kelvinator Sales Corp. Ltd. (Rexdale, Ont.) — Robert Desloges, Ontario sales manager.

Kingsway Transports Ltd. (Montreal)—Wilfrid A. Gareau, general traffic manager; Bertram H. Noseworthy, general sales manager.

Koehring-Waterous Ltd. (Brantford, Ont.) — T. M. McGill, sales manager, construction equipment.

Leonard Refrigerator Co. (Rexdale, Ont.)—H. D. Wallace, sales manager, new direct sales division; Ward Hollands, district manager for British Columbia.

Loblaw Groceterias Co. Ltd. (Toronto) — Edward Davidson, assistant general manager, services; William W. Laird, assistant general manager, executive division; Frank W. Morley, assistant general manager, merchandising.

Massey-Ferguson Ltd. (Toronto)—Norman H. Penney, comptroller, North American operations.

McKim Advertising Ltd. (Montreal)—D. E. Longmore, chairman; H. D. Roach, president; C. D. Dennis, Jr., executive vice-president.

Melton Real Estate (Vancouver) Ltd. (Vancouver) — S. M. Beckhuson, general manager.

Mills Spence & Co. Ltd. (Toronto)—Frederick W. Thompson, director.

National Life Assurance Co. of Canada (Toronto)—G. M. Drury, vice-president, administration; H. Sider, treasurer.

National Trust Co. Ltd. (Toronto)—The Right Hon. Vincent Massey, director.

Nesbitt, Thomson and Co., Ltd. (Montreal)—N. E. Lane, manager for Ontario; D. E. M. Schaefer, manager for Quebec; D. B. Gill, manager institutional department with headquarters in Toronto.

Niagara Finance Co. Ltd. (Toronto)—R. J. Berger, district supervisor covering eastern Quebec and Montreal; G. J. Lavoie, advertising manager; D. W. Willcock, personnel manager.

Orr Associates Ltd. (Toronto)—Jan Kuypers, consultant member of the staff.

Peace River Oil Pipe Line Co. Ltd. (Calgary) — E. J. Gallagher, president; T. W. G. Thomson, treasurer.

Raymond International Co., Ltd. (Toronto) — Donald H. Traynor, vice-president.

Richards-Wilcox Canadian Co. Ltd. (London, Ont.)—K. G. Bentley, branch manager, Toronto office.

Rodell Corporation Ltd. (Winnipeg)—R. W. Wootton, general manager of **Rodell Corp.** and its associate companies; J. P. Cullen, manager, **Midwest Diamond Drilling Ltd.**; W. N. Venables, manager, **Delro Industries Ltd.**; L. T. Henderson, manager, **Midwest Mining Supplies Ltd.**

Rosco Metal & Roofing Products Ltd. (Toronto)—C. O'Neill, manager, Ottawa branch.

Ross Engineering of Canada Ltd. (Montreal) — Ralph R. Willis, vice-president and general manager.

The Royal Bank of Canada (Montreal) — Hon. Ray Lawson, vice-president; A. L. Penhale, Roy H. Thomson and H. G. Welsford, directors.

Royal Trust Co. (Montreal) — Carman A. Jerry, assistant general manager.

The St. Lawrence Seaway Authority (Ottawa) — William A. O'Neil, superintending engineer, Welland Canal, effective April 1.

Seiberling Rubber Co. of Canada Ltd. (Toronto) — B. K. Ziemann, assistant sales manager.

Simpsons-Sears Ltd. (Toronto) — G. F Trotter, administrative vice-president; Ralph C. Shaffer, vice-president, retail administration.

Sola Electric (Canada) Ltd. (Toronto) — J. R. McGovern, vice-president and general manager.

Steinberg's Ltd. (Montreal) — Jack Levine, vice-president, sales; Sydney Caplan, vice-president, personnel; Sydney Kom, vice-president, distribution and processing; Mel Dobrin, vice-president, store operations; Leo Goldfarb, vice-president, development and expansion.

Television Shares Management Corp. (Chicago)—R. H. Cardine, field representative covering Canada.

Thompson - Petersen Advertising (Toronto) — Walter H. Reeves, media director.

Hiram Walker & Sons Ltd. (Walkerville, Ont.)—Lorne W. Duguid, vice-president.

G. H. Wood and Co. Ltd. (Toronto)—Harold L. White, special sales consultant.

U. S. Tax Worry? Experts Can Help

U.S. Internal Revenue Service representatives will be in Toronto at the Consulate General, 360 University Ave., March 14-April 15.

They will help U.S. income taxpayers (U.S. citizens nonresident in the U.S. and alien residents of the U.S. temporarily abroad) to prepare their tax returns.

During the month to April 15, the representatives may be reached by telephone at Empire 6-3127.

Due date for filing U.S. tax returns: April 15, 1960.

Civil Servants Frustrated As Crown Corps. Boost Pay

MONTREAL (Staff)—Federal government efforts to block wage-borne inflation in its own backyard are running into increasing labor difficulties.

Adding to its problems are pay increases being won by employees of crown corporations.

While officially they are separate bodies not controlled by the government directly, every time a crown corporation raises wages, the government faces fresh pressure from its civil servants.

When the St. Lawrence Seaway Authority refused its employees a raise last year, the unions took this as a significant test case.

The Authority claimed that since the civil servants weren't going to get a raise, neither should the Seaway men who were until recently civil servants.

Organized labor snapped back its answer:

Nonsense, these men are not affected by what happens to their ex-partners in the civil service.

Canadian Brotherhood of Rail, Transport & General Workers, representing the men, threatened to strike this spring if its demands were not met.

At mid-week the Authority seemed to have changed its mind and was negotiating pay increases.

Airline pilots employed by **Trans-Canada Airlines**—another crown corporation — added to the government's problem.

They held out for substantial pay increases and got them (**FP**, Jan. 2.)

Foreign Exchange Rates

Noon Value in Canada
Week Ended Jan. 19, 1960

	U.S. $	U.K. £
Wed.	.95 8/32	2.66 9/16
Thurs.	.95 9/32	2.66 10/16
Fri.	.95 11/32	2.66 12/16
Mon.	.95 8/32	2.66 9/16
Tues.	.95 7/32	2.66 7/16
Ave.	.95 43/160	2.66 47/80

U.S. rate reported by Bank of Canada.
U.K. bid rate reported by Toronto - Dominion Bank.

Profits Steady In Pulp, Paper

MONTREAL (Staff)—After a vigorous tussle with the profit-pinching U. S. - Canadian exchange rate, first indications are that Canada's pulp and paper companies have held average 1959 profits at levels similar to those in 1958:

- **Big newsprint and kraft producer Consolidated Paper Corp.** in a preliminary report says full-year net profit was $13,123,455 or $2.56 per share.

This compares with $12,574,634 or $2.45 in 1958.

Company's results reflect a good fourth quarter for the whole industry.

Indicated fourth-quarter profit was 75c a share compared with 57c in corresponding 1958.

Consolidated — which recently (**FP**, Jan. 19) bought bag and packaging system plants of **St. Regis Paper Co. (Canada)**—had 1959 sales of $99.5 million compared with $95.8 million in 1958.

Loss on exchange, a result of export payment in terms of U. S. dollars, was $3 million in 1959 and $2.3 million the year before.

Meanwhile a small newsprint producer has a similar look to its profits.

- **Donohue Bros.** in 1959 showed an increase in net profit of "more than 6%". In 1958: $885,353 or $1.48 a share.
- **Board specialist Bathurst Power & Paper Co.** is likely to show a substantial profit jump, possibly 15% or more.

Sales should be up around 9%. Net profit in 1958 was $1,546,663 or $3.87 per class A share before participation.

Bathurst is operating normally following recent fire in its chip storage and conveying area in Bathurst, N.B.

- **Howard Smith Paper Mills** is expected to have 1959 results not substantially different from those of 1958, with sales possibly a little higher.

Net profit in 1958 was $6.1 million or $3.09 per share, while sales hit $105.1 million.

- **MacMillan & Bloedel** — recently merged with **Powell River**—had net profit in year ending Sept. 30 last of $13,016,172 or $2.44 per share compared with $8,109,327 or $1.53 in the previous year.

The earlier year's earnings had been depressed by a long strike.

- **Eddy Paper Co.** expects a 1959 drop in consolidated net earnings of 15% or a little more because of lower prices on roofing products and higher taxes.

Net profit in 1958 was $1,987,236 or $4.97 on combined Class A and common.

- **Bowater Paper Corp.** — world-wide U.K.-owned pulp and paper empire with large interests in Canada and U.S.—recently said 1959 trading profit should exceed that of 1958.

Net profit, however, was down moderately in the first half, with no information yet released on the second.

LEGISLATURE LOOK-AHEAD

Smallwood May Reconsider Newfoundland Labor Laws

From Our Own Correspondent

ST. JOHN'S — The first session of the 32nd general assembly of Newfoundland will open in late March or early April in the new $8 million Confederation Building.

Upcoming legislation undoubtedly will follow the usual pattern — amendments, perhaps a few new bills designed to help industry and mining companies.

Speech from the Throne proroguing the session July 28, prior to the election, said the government intended to review legislation introduced during the bitter pulp and paper industry labor dispute "to determine whether or not the situation has improved to the extent that some of the safeguards which it was necessary, in the public interest to impose, may be modified".

Premier J. R. Smallwood has said the act decertifying the IWA would not be repealed.

Newfoundlanders say agitation against this act has been primarily from other provinces.

Smallwood called an election Aug. 20 over disagreement with the federal government on Term 29 and other issues.

Prior to the election, the four-man PC opposition split and two, James D. Higgins and A. M. Duffy, supporting the government, formed the United Newfoundland Party.

The other two PCs, leader Malcolm Hollett and G. R. Renouf, went down to defeat.

Smallwood defeated Hollett in St. John's West, having left Bonavista North to oppose Hollett.

Liberals did not oppose Higgins, Duffy and one other UNP man. Two were elected.

The Liberals lost two seats, one in Bell Island, the other in the two-man constituency of Harbor Main.

Standing of the new Assembly: Liberals 31, PCs three, UNP two.

Labor formed a party and entered the election with 17 candidates, all but one of whom lost their nomination fees.

Smallwood, who is 59 years old, has hinted he would like to retire to his farm and write. He may finish this three or four-year term.

Portraits in oils of former Speakers of the Assembly, now hanging in the old Colonial Building will be moved to the new chamber.

These will constitute one of the few links with the past in the most modern legislative chamber in the British Commonwealth.

A feature in the chamber will be a new sound system being installed by **Atlantic Films.**

It has no wires, no microphones. As one official described it, "the whole chamber will be bathed in electronic sound".

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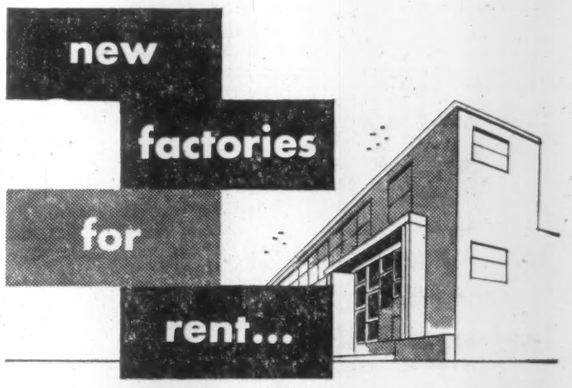

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OPPORTUNITIES

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Capital investment of $25,000.00 required.

WRITE BOX 140, THE FINANCIAL POST, TORONTO

Pint-Sized Detector Spots Radiation, Fits in Pocket

MONTREAL (Staff) — Canadian scientists have developed a new vest-pocket radiation detector that should sell for around $40.

To be produced by **RCA Victor** in Montreal, it is the result of co-operation among its scientific team, **Atomic Energy of Canada Ltd.** and Defence Research Board.

It is being offered for sale to nuclear research establishments in Canada and abroad.

Its important sales potential: Possible widescale acceptance by military and civil defence organizations.

Its developers point out that, despite its simplicity, the new detector is not a "do-it-yourself" item for citizens presently worried about fallout.

It only becomes practical in conditions of fairly heavy radioactivity, such as might be found near an atomic power plant or in the region of a recent nuclear explosion.

Then, however, the knowledge of radioactive intensity in such items as food or clothing would be literally a matter of life and death.

Until now this work has required scintillation or geiger counters both of which require batteries or power supplies giving several hundred volts.

The new equipment makes use of a transistor and needs only a low voltage.

The detector, minus battery and earphones, is only 1½ in. long.

Asbestos Hope in Sales Rise

High operating costs at the Black Lake asbestos mines, have delayed the day when **United Asbestos** will begin sharing revenue from the mine.

To Sept. 30, costs of output exceeded sales revenue by $1,760,000. This will have to be recovered before United will share in revenue.

However, President A. B. Davidson states in the annual report that sales of asbestos are improving, and coupled with cost reduction and better ore grade may mean start of cash flow to United by the end of the year.

American Smelting & Refining, which operates the mine through a subsidiary **Lake Asbestos of Quebec**, reported that in the last quarter of 1959, sales revenue exceeded costs. This reflects improved demand for fibre. In the first half of 1959, asbestos producers in Quebec boosted output 20% over the previous year.

Continued dredging operations during the period of low sales in 1958 and 1959 resulted in higher unit costs. A total of $2 million in dredging expenses was treated as a current charge against revenue.

At Sept. 30, United had current assets of $3,395,133, largely in cash and short-term notes. Current liabilities were $51,218.

But United has since paid $1 million for a 50% interest in **Thorold Concrete Block Co.** This is the first step in a program of diversification whereby United will broaden its interest in the building supply industry.

GREAT NORTHERN

Warrants to buy 25,000 $1 par common shares of **Great Northern Gas Utilities Ltd.** are being issued for $2,500 (U. S.) to an executive and director. Warrants, exercisable at from $10 to $14 a share, expire in 1967. Recent price: $5⅞.

OPPORTUNITIES

DISTRIBUTOR

With direct selling organization interested in extra line for Northern Ontario. The area now being covered is from Bradford north to Huntsville. Would be interested in all of Northern Ontario. Please apply to

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1. Pure Spring (Canada) Limited, are manufacturers and bottlers of the "Pure Spring" line of soft drinks with their head office and bottling plant for local distribution, in Ottawa, and with thirty-three plants bottling holding franchise to bottle their products in Eastern Canada and the West Indies.
2. The principal products of the "Pure Spring" line are Pure Spring Dry Ginger Ale, Sparkling Water, Collins Mixer, Honee-Orange Up-Town, Grapefruit'n Lime and India Express Tonic Water — as well as several other fruit flavours.
3. Completely new developments in the soft drink field, now being test marketed, would also be available.
4. "Pure Spring" has made greater progress over the past ten years than any other comparable line of soft drinks in Canada and the United States. In 1959 Pure Spring plants here sold over 80 million bottles of their products.
5. Pure Spring products in cans are now being sold in Toronto by all the leading chain grocery stores. Until now there has been no attempt to exploit the Toronto market.
6. It is now our intention to enter the Toronto market with our full line of bottled and canned soft drinks and to this end we are looking for one individual or Company prepared to take on the franchise to bottle and distribute "Pure Spring".
7. This notice should be of particular interest to any Company with a substantial amount of production space or with a number of trucks not being used to full capacity.
8. To enter into this franchise will involve a commitment in real estate, trucks, machinery and bottles of at least $250,000 — which figure will of course be reduced by availability of credit, existing buildings and trucks.
9. For further details write:

Franchise Division,
PURE SPRING (CANADA) LIMITED,
22 Aberdeen Street, Ottawa, Ontario.

Canada's 'Interpreter' Role Lands Lovick an Ad Account

Canada's reputation as interpreter among nations can help land an advertising account.

It did for **James Lovick & Co.** of Toronto.

This Canadian ad agency is promoting the interests of Australia to the U. S.

Here's how it happened:

The government of New South Wales, largest Australian state, opened a New York office to stimulate North American economic and travel interest in the state and in Australia generally.

Looking for an agency, it bypassed several interested New York agencies in favor of the Canadian organization. Reasons for the preference:

- **Canadians would understand** both Australian and U. S. viewpoints.
- **Willingness** to work with a small budget.
- **A sympathetic attitude** by the firm to the problems.

The Lovick program paints Australia as a good place for investment or for travel, tries to break down common U. S. idea that the country is one of "deserts and kangaroos".

CAREERS

This is Canada's national meeting place for executives who have positions to offer, and for those who have ability to offer

EMPLOYMENT WANTED

Getting Ahead

Astute businessmen plan for success; they read The Financial Post because it helps them make right decisions. Yearly by mail in Canada $8; elsewhere $9 yearly.

Canadian Government
TRADE COMMISSIONER

In early 40's, with broad experience and successful performance in trade, marketing and economics. Desires position of increased responsibility.

'Box 141, The Financial Post, Toronto

LAWYER

Osgoode Hall Graduate, 30, with general law practice background desires association with a progressive company with head office in Montreal.

Box 118, The Financial Post, Toronto

ENGINEER LAWYER

5 years a mining engineer, graduate in law this June.

John B. McLellan, 14th Floor,
320 Bay St., Toronto, EM. 8-4511

PROFESSIONAL ENGINEER

Available for temporary or part time employment.

Box 112,
The Financial Post, Toronto

AVAILABLE

Graduate Professional Engineer with successful career extending over 20 years in sales and management of regional sales offices. Age 44. Capable of assuming responsible position at management level.

Box 115, The Financial Post, Toronto

Available EXECUTIVE CHEF

Desires year-round position in first class Club or Hotel. Fully experienced in International Cuisine.

Box 143, The Financial Post, Toronto

COMPTROLLER

Chartered Accountant, age 31, presently employed as Comptroller with a medium-sized company, seeks position in similar capacity with a progressive organization with growth potential.

Box 133, The Financial Post, Toronto

LAWYER

with ten years experience with major oil company as counsel and secretary seeks employment offering opportunities.

Box 126, The Financial Post, Toronto

CREDIT OR BUSINESS MANAGER

M.C.I. degree. 15 years diversified retail and wholesale experience in business management, credit, office administration, systems and procedures, accounting and sales supervision. Seeks challenging position offering responsibility and scope. Age—thirties, married, willing to re-locate.

Box 117, The Financial Post, Toronto

SALES EXECUTIVE

Age 45, extensive experience in Management, Sales, Sales Promotion and Training Programs, seeks responsible position with established firm. Willing to re-locate.

Box 139, The Financial Post, Toronto

SALES EXECUTIVE

desires position in United Kingdom

Sales executive at present residing in Canada with many years' experience in the U. K. requires position of responsibility.

Box 135, The Financial Post, Toronto

SENIOR EXECUTIVE

Senior business executive holding responsible managerial position seeks change. Wide administrative and accounting experience in manufacturing and sales fields. Present earnings $15,000 per annum. Age 43.

Box 134, The Financial Post, Toronto

CHARTERED ACCOUNTANT

age 39, with 22 years' international professional and industrial experience seeks position with good prospects in the profession, industry or commerce.

Box 101, The Financial Post, Toronto

SMALL FIRMS

Graduate industrial engineer, three years experience with large Canadian corporations, looks for employment in small progressive firm engaged in manufacturing and/or marketing. Degrees held: B.Eng. — McGill. M.B.A. — U.W.O. Some funds available for investment in suitable firm.

Box 142, The Financial Post, Toronto

EXPORT MARKET

Executive, age 40, now Canadian citizen, married, no children. 7 years North American experience in production, contract estimating & administration, sales. Similar U.K. experience previously. Now managing director manufacturer's agents. Intends returning U.K. at own expense for family health reasons. Seeks liaison representative post U.K. to promote reciprocal east/west trade.

Box 125, The Financial Post, Toronto

EXECUTIVE ENGINEER

Does your firm recognize that its growth depends upon the accomplishments of its engineering staff and on the calibre of the technical decisions made at top management level? If so, I would consider leaving my present position to bring 18 years of professional engineering experience in research, design and management to your organization.

Canadian. Would agree to residence in U.S.A. for limited period, for company adaptation only.

Background is electronics, but would consider diverse fields offering a challenging managerial opportunity.

All replies will be answered. A resume will be supplied in confidence to any offers of interest.

Box 72, The Financial Post, Toronto

MR. EMPLOYER

4 MASTER OF BUSINESS ADMINISTRATION GRADUATES
University of Western Ontario, 1960

1) With Undergraduate Degrees in: Liberal Arts; Chemistry; Economics; Chemical Engineering.
2) With Interests in: Sales; Factory Management; Finance; Cost Control; Consulting; General Administration.
3) Invite Your Inquiries: Resumes Will Be Sent Upon Request.

Box 108, The Financial Post, Toronto

YOUNG JUNIOR EXECUTIVE

fluently bilingual, University graduate, nine years experience with food industry and related fields; production, technical sales promotion and production-sales co-ordination. Excellent connections: Food, Agriculture, Government, Politics, etc. Would be interested in Sales Executive position in Ontario or Quebec.

Box 110, The Financial Post, Toronto

APEC Seeks More Capital For Maritime Provinces

By VINCE LUNNY

MONTREAL (Staff) — A study of availability of capital in the Atlantic Region has been started by the Atlantic Provinces Economic Council.

It will seek a basis on which to recommend closure of gaps in the area's capital needs.

"Risk capital is not plentiful," said Nelson Mann, APEC's executive vice-president, "and the entrepreneur with little more than an idea frequently considers this a serious handicap to development."

Mann was addressing the Controllers Institute of America in Montreal.

Recommended:

Implementation of the capital projects proposal of the Gordon Commission to trigger more rapid growth in the Maritimes and create better opportunities for profit.

There is need to co-ordinate plans for a number of capital projects including:

- **A causeway to Prince Edward Island.**
- **The Chignecto Canal.**
- **The corridor road through Maine** and the Eastern Townships to Montreal.
- **The underwriting of cost of electric power** to process resource materials.

"The question often has been raised," said Mann, "whether Canada's Atlantic Provinces are provided with sufficient capital to meet their needs for development comparable with the rest of Canada."

This is what the APEC study hopes to determine on a broad scale. Preliminary studies have been made through individuals and in small committees.

Several Bids For Cotton Mill

A number of offers have been received by **Canadian Cottons Ltd.** for its plants and other property at Cornwall, Ont., an official tells **FP**.

Canadian Cottons, once Canada's No. 2 textile maker, ceased operations in Cornwall toward the end of last year. The plants were put up for sale. Earlier last year **Canadian Corporate Management** acquired 90% of Cottons' outstanding stock.

Moves to attract new industries to the St. Lawrence Seaway city of Cornwall, population 40,000, have so far been largely successful. Chances are that the Canadian Cottons properties there will find buyers in the near future, Cornwall businessmen believe.

One offer in particular, involving a $1 million bid, is currently being discussed, **FP** understands.

CAREERS

This is Canada's national meeting place for executives who have positions to offer, and for those who have ability to offer

HELP WANTED

THE TOWNSHIP OF EAST YORK

invites applications for the position of

TOWNSHIP SOLICITOR

An interesting position for a person desirous of pursuing the field of Municipal Law and Administration.

Applicants should be experienced in all phases of municipal legal work.

Salary Range — $10,000.00 to $12,000.00 per annum, which may be subject to reconsideration.

Further information may be obtained from the undersigned.

Reply in writing, giving full particulars as to experience, education, age, and date available to:

Miss D. M. Tucker, Clerk,
Township of East York, Municipal Building,
Coxwell & Mortimer Avenues, Toronto 6, Ont.

WE NEED

managers
engineers
salesmen
research men
for more than 50 positions

call or write

a. g. heighington associates
yorkville towers, toronto — WA 4-8131

REQUIRED SALES ENGINEER

Age 25-30

By firm of process pump engineers. Applicant should have mechanical or chemical engineering degree, preferably from Canadian university, and 3-4 years engineering experience. Location will be Toronto with some travelling mostly in Ontario. Include details of experience.

Box 118,
The Financial Post, Toronto

GENERAL MANAGER

Applications are invited for the position of General Manager of a Prepaid Medical Service Plan with offices located in Halifax, N.S. This position requires a person of proven managerial ability and one who will be capable of developing future policy of the association. Remuneration will be commensurate with the qualification of the applicant.

Applications, which will be held in strictest confidence, should give full particulars of education, experience, references, etc., and be addressed to:

Peat, Marwick, Mitchell & Co.
12 Duke St.
Halifax, Nova Scotia

An Important Opening in

CHEMICAL MARKET RESEARCH

A man experienced in market research and development in the industrial chemicals and plastics field, is required for a newly organized Development Department located in Montreal

He will undertake systematic and continuing studies of domestic and overseas markets for a wide range of chemicals and allied products. Particularly sought, is a demonstrated capacity for self-initiated action leading to the generation, appraisal and furtherance of expansion and diversification proposals plus the ability to establish effective working relationships with the several groups concerned with this area.

Qualifications should include complete familiarity with the techniques of industrial chemical markets research and sound experience with a major corporation. A degree in chemistry or chemical engineering is required and formal training in business administration would be an asset.

Enquiries regarding this position will be treated with the strictest confidence. Applications should include a personal resume and be written to:

The Manager, Development Department
Canadian Chemical Company, Limited
1600 Dorchester Street West
Montreal 25, P.Q.

CAREERS

This is Canada's national meeting place for executives who have positions to offer, and for those who have ability to offer

HELP WANTED

REGIONAL SALES MANAGERS

REQUIRED one each for Ontario, Quebec, Winnipeg, Edmonton and Vancouver. Must be completely capable of hiring and training salesmen to do an outstanding job selling a $500 product, which has excellent acceptance with, and is greatly needed by the automobile dealers and service station operators. A mechanical background, while preferable, is not necessary, and preference will be given a top salesman with outstanding management ability. Earnings are by salary and commission and should range around $25,000 per year. Apply by letter, giving complete resume to **Mr. Bateman, World Wide Distributors, 76 Church Street, Toronto. EM. 6-2913.**

A TEXAS OIL COMPANY WANTS MAN OVER 45

WE NEED a good man at once and we are willing to pay top earnings. We prefer someone between 45 and 65 . . . who can make auto trips for about a week at a time . . . and can call on small town industrial and rural property owners.

WORTH $12,000.00

Our top men draw exceptional earnings up to $12,000 in a year. This opening in your area is worth just as much to the right man. We take care of all deliveries and collections. Pay earnings in advance. Write a confidential letter to

President, Dept. FP 1, Box 711 Fort Worth 1, Texas, U.S.A.

SALES ENGINEER

Manufacturer of Automatic Controls and Oil Field Equipment requires Sales Engineer for Toronto Office. He should have a minimum of 2 years' experience in Petroleum, Chemical, Thermal Power or associated industries and be interested in a challenging career. Salary commensurate with experience and ability.

Reply with details to
Box 123, The Financial Post, Toronto.

SENIOR SALES ENGINEER

Industrial & Utility Instrumentation Fields

Long Established Canadian manufacturer of diversified recording and control instruments and valves for the major industries, gas and electric utilities requires graduate engineer age to 35 years with minimum of 3 years sales experience for Toronto and vicinity. Experience in instrumentation application preferred. Write giving details of experience, education, background and salary required. All enquiries will be treated confidentially. Our staff have been advised of this advertisement.

Box 111, The Financial Post, Toronto

EPC — EXECUTIVE PLACEMENT CENTRE for *Executives at all levels*
Suite 304, 97 Eglinton E. Toronto 12, HU. 1-6301

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In Canada: $8 a year; 2 years $14
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INDUSTRIAL RELATIONS MANAGER

Required Immediately

National Manufacturing firm requires an experienced man to head the Industrial Relations Department of its operation in the Mid-West. This is a new staff position which will entail full responsibility for the recruitment, selection and induction of new employees, personnel records, wage and salary administration, employee benefits and services, training, personnel appraisal and development, employee communications, accident prevention, and negotiation and administration of Union Agreements.

Prior training (University graduates preferred) and several years of experience are essential requirements.

Salary open. Applicants are requested to mail details of their qualifications to **INDUSTRIAL RELATIONS COUNSELORS SERVICE, INC.**, 85 Bloor Street East, Toronto 5, Ontario.

MANAGEMENT CONSULTANT

Of highest calibre, required to assist in organizing new management consulting firm. Qualified man will be offered partnership in the firm.

Chartered Accountant preferred. Must have experience in some of following areas: Management Accounting, Production Control, Clerical Work Measurement, Organization Studies, Costing, Systems and Procedures, Mechanizations.

Applicant should state age, experience and professional qualifications.

Box 120, The Financial Post, Toronto

ORGANIZATION and METHODS

A large municipal corporation requires the services of two experienced organization, systems and methods men. (Toronto Area)

ORGANIZATION AND METHODS ANALYST

Requirements—University Graduate preferably in Business Administration or Commerce & Finance or a person possessing a recognized accounting degree.

Minimum of three years experience in a large systems and procedure operation, involving re-organization of clerical and departmental routines, electronic systems and methods, data processing, feasibility studies, etc.

Must possess a creative, analytical and logical approach to a variety of problems and be capable of developing and presenting recommended programmes.

SYSTEMS AND METHODS ANALYST

Requirements—Experience in general and electronic systems and methods field. Ability to accept responsibility.

Excellent employee benefits are applicable and the salaries are commensurate with experience and ability.

Please reply in confidence, submitting complete details of background and experience, salary required and when available to.

BOX 119, THE FINANCIAL POST, TORONTO

ENGINEERING SALES MANAGER

Required for national company with head office near Toronto. Preferably a graduate in civil, 25-35 years of age and at least 5 years experience in concrete, reinforced steel or allied field. Responsibilities will include application engineering for customers and branches, new product development, redesign of existing products and customer contacts.

Salary commensurate with experience. Liberal fringe benefits.

Please apply in confidence giving full details of experience, etc., to:

Box 131, The Financial Post, Toronto

ASSOCIATE EDITOR

For Leading Canadian Business Publication

WE REQUIRE

An experienced, career-minded editor, capable of feature writing and with original ideas on makeup and layout.

WE OFFER

Top salary, excellent promotion prospects, full company benefits; modern working conditions and an opportunity to reach a national audience with a fast growing publication. Please send pertinent background detail in confidence to:

PERSONNEL MANAGER
MACLEAN-HUNTER PUBLISHING COMPANY LIMITED
481 University Avenue • Toronto 1, Ont.

SENIOR INTERNAL AUDITOR

A large Canadian Company requires a Senior Internal Auditor for one of its divisions in south-western Ontario. Preference will be given to candidates with internal auditing experience in manufacturing operations, together with a knowledge of systems and computer applications. A recognized accounting degree would be desirable. This position offers opportunities for advancement.

Attractive starting salary, plus comprehensive company-paid benefits are provided. Please reply in writing, stating age, education, experience and salary desired to:

Box 137, The Financial Post, Toronto

Getting Ahead

Astute businessmen plan for success; they read The Financial Post because it helps them make right decisions. Yearly by mail in Canada $8; elsewhere $9 yearly.

ONTARIO PSYCHOLOGICAL CENTRE — OPC
For aptitude and executive assessments. Career planning.
97 Eglinton Ave. E., Tor., HU. 1-6301

Regional Sales Manager

Required by major electrical manufacturer. Unusual opportunity created by aggressive expansion programme. This key position requires an experienced man with exceptional organizing and administrative ability to promote sale of comprehensive range of industrial electrical products.

Eventual location in eastern or western Canada.

Salary will be fully commensurate with the importance of the position plus attractive bonus based on results.

Replies will be held in strict confidence and should contain a complete outline of personal background and professional history. *Address replies to:*

TECHNICAL SERVICE COUNCIL
2 Homewood Avenue
Toronto 5

Since 1927, the non-profit placement service for engineers, scientists and executives.

SALES REPRESENTATIVES

Rapidly expanding national organization requires a number of additional sales representatives interested in better than average income.

Age 28-43. Good education and character, ambitious and energetic.

Send resumés in confidence to:

Box 132, The Financial Post, Toronto

Our staff has been advised of this advertisement.

SENIOR SALES REPRESENTATIVE

Large Canadian Company requires a Senior Sales Representative for one of its divisions in south-western Ontario. Preference will be given to candidates with sales experience in manufacturing operations, together with a knowledge of systems and computer applications. A recognized accounting degree would be desirable. This position offers opportunities for advancement.

Attractive starting salary, plus comprehensive company-paid benefits are provided. Please reply in writing, stating age, education, experience and salary desired to:

Box 138, The Financial Post, Toronto

WANTED: PLANT ENGINEER

Interesting opening with large newsprint mill, located in the Saguenay Region, Quebec, for a Mechanical Engineer with 10 years' experience in the Pulp and Paper Industry.

ATTRACTIVE SALARY — WELFARE PLAN — STATE EXPERIENCE — AGE AND MARITAL STATUS.

Box 138, The Financial Post, Toronto

EPS

GENERAL MANAGER

Required to head-up and expand an established foreign automobile sales organization operating from coast to coast.

Candidate MUST be BILINGUAL and capable of managing a small but growing organization. While some experience in the automotive industry would be an advantage, this is not essential. The prerequisites are DRIVE and MANAGEMENT ability with some emphasis on sales experience. A new Canadian, fluent in French, but with good overseas experience, might also qualify.

Applications held in confidence

Executive Placement Services
A Division of
LEETHAM, SIMPSON LIMITED
Management Consultants 550 Sherbrooke St. W., Montreal

CHARLES EXECUTIVES

& Part-Time Personnel Ltd.
Specialists in supplying
HELP OF THE HIGHEST CALIBRE
to the
Advertising — Marketing Sales Fields
HU. 7-1576
181 EGLINTON EAST TORONTO 12

OPPORTUNITY FOR EXPERIENCED NEWSPAPER MAN

If you have had experience in all phases of newspaper publishing and believe that you can qualify to assume complete responsibility for publishing a long-established weekly in a progressive southern Ontario town, please write full particulars of your qualifications. This opportunity will require imaginative editorial and promotional skills to keep pace with community developments and to create a product which will be in demand. To the man who proves himself in this position will be an opportunity for ownership under favourable term purchase conditions. Apply

Box 147, The Financial Post, Toronto

SALES MANAGER

REQUIRED

for brand new Encyclopedia Canadiana to direct sales. Thousands of leads now on hand. We must have someone to organize and hire men to follow up these leads and turn them into sales. This position puts you in on the ground floor, with a product that is strictly Canadian, done by Canadians for Canadians and sensationally written up in Editorials in Time, Maclean's and leading newspapers across Canada. Tremendous earnings for the right man.

Write or phone **DARREL P. SIMPSON**

CANADIANA COMPANY LIMITED
66 Bailey Crescent
SCARBOROUGH, ONTARIO. ATlantic 2-5431

THE PROVINCE OF MANITOBA

requires an

INDUSTRIAL DEVELOPMENT ENGINEER

for THE DEPARTMENT OF INDUSTRY AND COMMERCE

The Province of Manitoba requires a graduate engineer with a minimum of seven years diversified experience in industry to join a team of specialists working to promote industrial development within the Province. This engineer must be able to work without direct supervision and must be able to adapt himself to a continuous flow of new problems. He will need sufficient financial knowledge to prepare financial as well as technical analyses of the programs on which he will be working. He must be able to meet and converse freely with all types of businessmen but does not need sales experience.

SALARY RANGE: $8760-$10,560 per annum

Full civil service benefits including three weeks annual vacation with pay, liberal sick leave with pay, and pension privileges. Apply giving full particulars to:

MANITOBA CIVIL SERVICE COMMISSION,
ROOM 247, LEGISLATIVE BUILDING,
WINNIPEG 1, MANITOBA.

PRODUCTION PLANNER

The Job . . .

To plan and set up production schedules, balanced shop loads, manpower forecasts and preparation of statistical analyses of performance within these planned activities.

The firm, located in Ontario, is a rapidly expanding medium size job shop engaged in metal manufacturing.

The Man . . .

A keen analytical individual coupled with the aggressiveness and follow-up ability to obtain co-operation with all levels of plant personnel.

A five year industrial background in production planning and scheduling with a wide diversification of products would be of particular interest.

Please reply in confidence to:

PAYNE-ROSS LIMITED
management consultants
250 University Avenue, Toronto, Ont.

UNIVERSITY GRADUATES

with strong interest in

SALES

are required by

SHELL OIL COMPANY OF CANADA LTD.

SHELL offers excellent opportunities to candidates interested in training for positions in Sales. Candidates must have potential to advance to Management positions in the Marketing Organization.

Full range of benefits, salary commensurate with education and experience, desired age 22-28.

Apply in writing outlining background to:

Employment Manager
Box 400 Terminal "A", Toronto 1

SALES REPRESENTATIVES

Large company operating on a nation-wide basis requires a number of sales representatives. The man we seek is age 28 to 40. He has not yet found the line of business he hopes to make his life work, he has a good education and above all is a man of character, ambition and energy. Such a man will make a favourable impression on the first interview. He should be interested in a better than average income. The man selected will be thoroughly trained with a growing company with modern ideas. The applicant must give complete information, including address and telephone number in a letter asking for an interview.

Box 51, The Financial Post, Toronto.

MANUFACTURING MANAGER

Our client is seeking a man with proved ability to direct a manufacturing operation, preferably with experience in steel sheet and plate fabrication.

Responsibilities will include the direction of manufacturing departments, procurement and material control, cost estimating, production engineering and some product design.

Location: Montreal Area.

Salary: Up to $15,000.

Please submit application and personal resume to:

STEVENSON & KELLOGG, LTD.
Consulting Management Engineering,
807 Sun Life Building, Montreal.

THE UNITED NATIONS

RELIEF AND WORKS AGENCY FOR PALESTINE REFUGEES IN THE NEAR EAST

invites applications from qualified candidates for the following international post:

FIELD PERSONNEL OFFICER

Responsibilities include the administration of the personnel office, application of the Agency's Staff Regulations, participation in management functions (planning and determining labour requirements), preparation of budget estimates, and reports. Minimum qualifications acceptable are University degree, or its equivalent and several years experience in personnel administration either in international, governmental or comparable organizations. Excellent English essential; French and/or Arabic an advantage.

APPLICATIONS

Qualified candidates should apply in writing by air mail to Chief Personnel Division, UNRWA, UNESCO Building, Beirut, Lebanon, designating post vacancy concerned and indicating qualifications, experience, age and citizenship. Name and address should be typewritten or printed in BLOCK LETTERS. Information relating to remuneration and conditions of service will be furnished by mail to candidates who meet the above requirements.

CHARTERED ACCOUNTANT COMPTROLLER

Required by large well-established and progressive merchandising firm located in Northern Ontario.

Age: 30-35 *Salary: Full Commensurate*

Applications, which will be held in confidence, should give full details of education, experience and present salary.

BOX 38, THE FINANCIAL POST, TORONTO

DEPARTMENT STORE

Requires a self-starting manager to handle all advertising and sales promotion. Our staff operates on a five-day week and has the benefits of a group medical and hospital plan, as well as life insurance.

We have just opened our second store, after having been established for many decades. This is an excellent opportunity to grow with a progressive company.

Please reply giving your experience, age, marital status, and salary expected to:

Mr. T. S. A. Sutherland,
JOHNSTONE-WALKER LTD.
P.O. Box 7, Edmonton, Alberta.

EUROPEAN CONSULTING OPPORTUNITY MANUFACTURING-INDUSTRIAL ENGINEERING

Minimum Starting Salary to $18,000. Plus Bonus

The Job . . .

Expansion in one of our International Associated Companies has created an opening for a Senior Assignment Director to supervise consulting assignments in manufacturing companies centred principally in Europe. Some travel will be involved, but individual jobs will be on a long-term basis, with expenses for family relocation and car provided. The first assignment will deal with analysis and re-organization of a large European multi-plant organization engaged in the manufacture and assembly of industrial and consumer metal goods. Excellent opportunity for growth within a world-wide consulting organization. To start March 1st.

The Man . . .

A dynamic young manufacturing executive, 35-50 years of age, with highly developed mental ability and proven experience. Education must include Mechanical or Industrial Engineering degree; an MBA would be helpful in addition. His experience covers a wide range of responsible positions in large industry. He must have a thorough knowledge of Methods Improvement and Work Measurement, Cost Analysis, Production Planning and Control, Labour Relations, and Organization Analysis and Development. He is unusually energetic, decisive, mature, a good organizer and able to supervise specialists in a wide range of consulting assignments. Working knowledge of some foreign languages helpful, preferably German and/or French. Preference given to Canadian or American citizen.

Fully qualified candidates should reply in writing or telephone Mr. Rourke, AV. 9-6193

PAYNE-ROSS LIMITED
management consultants
550 SHERBROOKE ST. W., MONTREAL

CONTROLLER

Required by expanding progressive steel company with Head Office in Port Arthur, Ontario. Reporting to the Management, the Controller is responsible for financial planning and reporting, administration of forecasts and budgets, cost and general accounting and supervision of accounting staff.

Applicants must have background and experience of accounting management and financial control. Excellent salary and career for the right man. Apply in confidence in writing only, giving complete details to

DUNWOODY, SAUL, SMITH & CO.
Chartered Accountants
103 Brodie Street South, Fort William, Ontario

OIL REFINERY PROCESS ENGINEERS

for

NEW CANADIAN REFINERY

For openings in our Technological Department. Chemical Engineering degree and 3 to 6 years experience in Process Engineering and Technical Service desired. Send resume of experience, education, personal history and salary to R. C. Felt, Refinery Manager.

IRVING REFINING LIMITED
P.O. Box 1260, Saint John, New Brunswick, Canada

Letter from London

Prosperity helps many, including clergymen, to be better Christians . . .

By ADELPHI II

WE ARE HAVING our first spell of really cold weather, which means that our radiators are behaving eccentrically.

A good many of them have ceased to function, as they usually do when they are most needed.

They resemble the Habeas Corpus Act which is always suspended — as it was in 1940 — when the liberty of the subject is peculiarly endangered.

There is little to warm us up, even in politics. The swastika scare has now been pushed off the front pages of the newspapers, and a bomb outside one of Sir Oswald Mosley's offices got only an inch or so of print.

However, some sections of the Press are doing their best to keep the business alive by publishing stories of what is supposed to be happening in Germany.

They report that neo-Nazism is flourishing in secret and no doubt they will soon discover that Hitler is still alive.

The Communists are doing their utmost to keep the issue of paintpot politics alive, and they would like to persuade the public that the Tories are somehow involved in it.

And anybody who ridicules the suggested boycott of South African exports is also smeared as a Fascist. The boycott, of course, will not be operated, and if it were, and the South Africans retaliated, the consequences to such ports as Liverpool would be dire.

* * *

We are being taken behind the political scenes by Sir Anthony Eden's memoirs, now appearing serially.

They are interesting in virtue of being written by a former Prime Minister, but, let us face it frankly, they are preternaturally dull.

Whatever else Sir Anthony may be, he is not a good writer, and if he had been wise he would have employed a "ghost" to knock his reminiscences into shape.

There is no disgrace in having a ghost. And there is certainly nothing novel in it.

Perhaps Sir Anthony believes that he is better with the pen than men who have spent their working lives in writing. If so, it would not be the first time that he has grossly deceived himself to his own undoing.

* * *

There are plenty of good writers about, even though the mortality rate during the last year or two has been heavy.

The latest addition to the melancholy list is Nevil Shute (Norway).

When Mr. Shute was at Oxford just after World War I, nobody would have picked him out as the man who would develop into the most successful novelist of his generation.

His specialty was engineering and he stammered badly, which prevented him from shining, or cutting any sort of figure, in the ultra-literary Oxford of those days.

Perhaps that is why he turned, as Somerset Maugham (who also stammers) did, to the printed word to express his views on and to the world.

Mr. Maugham has made a huge amount of money as an author. Mr. Shute could not hope to make as much, as he wrote when income-tax had risen to penal levels.

It was on that account that Mr. Shute exiled himself and settled in Australia a few years ago, and it was in Australia that he died.

He was a magnificent narrator, with only one superior in that category among the English-speaking peoples.

Mr. Shute himself would not resent being placed second to C. S. Forester.

* * *

Authors have to pick and weigh their words. Archbishops can say just what comes into their heads, without any greater risk than frightening churchgoers away.

It is a freedom of which the Archbishop of Canterbury, Dr. Fisher, often avails himself, not always with the happiest results.

Preaching at Croydon parish church recently, His Grace let himself go about the phrase "we've never had it so good".

He said it is a dreadful phrase: "Whenever I hear it I say to myself in the words of our Lord, how hardly shall they that have riches enter into the kingdom of heaven."

When we all have incomes of £7,500 a year and live in a palace—which is the Archbishop's comfortable situation — he may have reason to worry.

But, except for the fortunate few, we are not rich. We are simply, as a nation, enjoying a higher standard of life than our predecessors did.

Among the beneficiaries are the poorer clergy, whose penurious existence used to be painful to contemplate. The managers of the Church finances accordingly decided that they would change their policy and invest the Church's funds in equities.

In the last five years that change has brought capital gains of £50 million, and it has, by extension, brought dignity and peace of mind into the homes of many who have a cure of souls.

Even now, the rank and file of the clergy, like the rest of us, are a long way from palaces and surtaxed incomes.

But they and their families are happier, if not better, Christians, in virtue of being able to buy all the necessities of life and perhaps some of the luxuries.

And, with all respect (or none) to the Archbishop, the clergy, with their less exiguous incomes, are not further removed from the kingdom of heaven merely because they are further removed from short commons and despair.

* * *

Conceivably the Archbishop was cheered up by the shake-out in the stock markets which began a few days before Christmas.

The event was overdue, especially as a warning to the inexperienced investors, who seemed convinced that prices never fall, but only rise steadily.

There was a tendency on the part of those investors to regard share-buying as equivalent to backing horses that are incapable of losing.

They have had a few jolts which should prove salutary.

There will be another jolt if the bank rate is raised to bring it more into line with the higher interest rates in other financial centres.

ANNOUNCEMENT

HEGGIE APPOINTMENT

JOHN E. CHILMAN

The appointment of John E. Chilman as General Manager of Heggie Advertising Company Limited has been announced by Jack Heggie, President. In addition to his new duties, Mr. Chilman will continue to supervise work on certain accounts within the agency.

U.K.-Controlled Company Plans Realty Financing

A secondary offering of debenture-stock units in a new real estate firm, specializing in shopping centres, will be made about the end of January.

Dollar Land Corp. plans to make further property investments, in addition to the two shopping centres it now owns—the $808,000 Southgate Shopping Centre at Chilliwack, B.C., and the $22.5 million Cross Country Centre at Yonkers, N.Y.

Dollar Land Corp. is a subsidiary of **Dollar Land Holdings Ltd.**, a U. K. firm.

An offering Monday of 2,254,000 par £1 shares of the parent firm on the Stock Exchange, London, was oversubscribed six times.

The parent will retain 90% of the Canadian subsidiary's capitalization of $7.2 million 7% 30-year unsecured debentures and 432,000 npv common shares.

The remaining $720,000 debentures and 43,200 shares are being placed privately in Canada.

A part of this private placement is expected to be offered to the public shortly, in the form of units.

Price will be $160 per unit, consisting of a $100 debenture and six common shares.

Six of the 11 directors of the Canadian company are also directors of the U. K. parent.

They are the Earl of Mansfield (a director of **Royal Insurance Co.**), chairman; Sir Ernest Harry Lever, Dorking, deputy chairman; C. W. P. Hampton, London; James H. Magee, Wellesley, Mass., an officer of **John Hancock Mutual Life Insurance Co.** Nathaniel Hamlen and Francis Blake, Boston.

The last two are chairman and vice-chairman of **Allied Research & Service Corp.**, financial counsel and real estate consultants, which has a five-year contract as advisor to the Canadian firm.

Canadian directors: Walter Harris, former federal finance minister; Victor M. Seabrook and Peter Wright, Toronto lawyers; and Gerald Arundel-Evans and Harold A. Stevenson of Montreal.

Dollar Land Corp., the Canadian company, owns 3,800 of the 4,100 authorized shares of its U. S. holding company, **County Dollar Corp.**

The Yonkers centre, covering 70.8 acres, was started in 1951 and is now leased to 83 tenants. Rental was $1,545,587 in 1958, and is now about $200,000 higher. The former owner, **Sol G. Atlas Realty Inc.**, will continue to manage the property for two years, at a fee of $47,000 a year.

Southgate centre in Chilliwack was built in 1958; current annual rentals amount to about $73,000. It is being managed by **H. A. Roberts Ltd.**, Vancouver, at an annual fee of $2,000.

The two properties were acquired through **New Townships Management Co.** of Nassau, Bahamas, at a fee of $1,332,667. This firm is being retained to investigate properties considered for purchase by Dollar Land Corp.

After completing the proposed purchases in Yonkers and Chilliwack, the Canadian company and its U. S. subsidiary will have some $1.3 million for working capital and for investment in other North American real estate.

Directors of the U. K. company are considering several such investments.

Emphasis will be on acquisition of property with substantial growth potential.

Prospectus for the U. K. issue states that agreement has been reached with investment dealers **Andras, Hatch & McCarthy** of Toronto and **Odlum Brown Investments Ltd.** of Vancouver to seek a listing for the Canadian company on the Toronto Stock Exchange, maintain a market in its securities until listing, and to market 10% of its capitalization for a commission or fee of $50,000.

OIL PROPERTIES

ARCTIC ISLANDS

21,000,000 ACRES

SIEBENS LEASEHOLDS LTD.

CONTACT IF INTERESTED

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PH. AM 3-3470

Vancouver Harbor Study Instituted

A study of present and future needs of Vancouver Harbor will be started shortly by the National Harbors Board, it is announced by Transport Minister Hees.

Present facilities, harbor efficiency, gravel resources and their use in development of industrial sites, and more effective use of lands in some harbor areas will be reviewed.

Traffic handled in Vancouver harbor last year compared favorably with 1958 despite the 49-day lumber strike, it was reported.

Cadillac

A GENERAL MOTORS VALUE

The Coupe de Ville

Silence is the Voice of Quality

Get behind the wheel of a 1960 Cadillac some day soon—point its handsome hood down your favorite stretch of highway—and listen!

Except for the occasional lullaby of the passing breeze, there will be literally nothing but silence to greet your ears.

But, oh, how meaningful that silence is!

For it speaks, with irrefutable logic, of the ingenuity of Cadillac design—and of the soundness of Cadillac engineering—and of the skill and integrity of Cadillac craftsmanship.

And just as silence is the voice of quality in a motor car—so quality, in its own turn, is the product of experience.

For almost six decades, Cadillac has devoted itself exclusively to the creation of the finest motor cars that the current automotive science would permit.

So rigid, in fact, has been Cadillac's adherence to the principles of quality that the two have become virtually inseparable in the public mind.

Never before, however, has this quest for perfection been as fruitful as in 1960.

In its styling and design, in its construction and assembly, and in its attention to detail—it is, far and away, the finest Cadillac yet.

We suggest that you see this new Cadillac—and drive it—and listen to it—very soon.

You'll find that the quiet of a Cadillac is the most eloquent sound in motordom. Give yourself this delightful experience today. Your Cadillac dealer is awaiting your visit.

VISIT YOUR LOCAL AUTHORIZED CADILLAC DEALER

CAD-5608

SEE YOUR CADILLAC DEALER

Addresses Made at the Annual Meeting of Shareholders

The Royal Bank of Canada

James Muir, Chairman and President, Declares Recent Experience Holds Lessons For Monetary Authorities and Chartered Banks In Combating Booms and Slumps in the Future

Ambiguities in concept of money supply and defects in monetary mechanism still hamper central-bank control of credit

Canada needs aggressive leadership by government, backed by self-discipline of all producing groups if she is to maintain trade position, high living standards, economic growth

General Manager reports assets at $4,129,658,661 — Capital Funds exceed $256,000,000 — Over 3 million depositors — Home loans arranged by "Royal" represent about 30% of all N.H.A. loans held by banks — Branches abroad well equipped to aid exporters

ADDRESS OF CHAIRMAN AND PRESIDENT

James Muir, Chairman and President, in moving the adoption of the Directors' Report said:

The 90th Annual Report and Balance Sheet of the bank are in your hands. As usual, the details will be discussed later in today's proceedings.

Since we last met, Mr. B. L. Mitchell, a Vice-President and a Director of the bank since 1945, died suddenly. He had been connected with the bank as a member of the staff and then as a member of the Board for a period aggregating more than fifty-five years. B. L. Mitchell's services were of a quite exceptional order and he passed away midst the affectionate regards of a host of friends outside as well as inside the bank.

For reasons of health and through a desire to lighten his business responsibilities, Mr. Taylor-Bailey has not offered his name for re-election. Mr. Taylor-Bailey has been a member of our Board for sixteen years and has at all times been more than willing to give of his time and experience in the interests of the bank. He carries with him the good wishes of all of our members.

Today you will find three new names — in the persons of Mr. Alfred L. Penhale, President and Managing Director of Asbestos Corporation Limited; Mr. Roy H. Thomson, whose newspaper publishing activities are almost too numerous to mention, and Mr. Hubert G. Welsford, President of Dominion Bridge Company Limited — included in the list of nominations.

In my general remarks today I shall consider first the recent past, with special emphasis on what we might aptly call "the lessons of monetary experience." Next, I shall turn to some key decisions in trade policy that must be made in 1960. Finally, I shall try in a very brief appraisal to relate both to Canada's future growth in the present decade and beyond.

Recent Trends

In 1957-58 we experienced a recession of sufficient severity to shake the complacency bred of the war and the prosperous, even hyper-active, post-war 1940's and 1950's. As 1959 progressed the economy showed marked improvement and in the later stages of recovery much of the Government's anti-recession spending coincided with a strong private demand for funds. This combination of forces had a powerful impact upon the money market. In fact, we may say not only of bank credit but of credit in general that, in the words of the Governor of the Bank of Canada, "the hot days of August represented the peak of the fever . . .". Since then both bank loans and bank deposits have fallen off and the pressure on the banks has eased.

In government finance, too, a firm indication in early October by the Minister of Finance that the line would be held against inflation, the subsequent issue of government bonds on a realistic and clearly attractive yield basis, and a resolute defence against increases even in politically popular expenditure, have given new life and hope to the bond market.

There are two developments in the latest credit freeze and thaw that deserve particular attention, especially in view of lessons to be learned for guidance in the future: the first is directly concerned with the monetary authorities, the second, with the chartered banks.

To facilitate Government financing during 1958, the money supply, that is, currency plus chartered bank deposits held by the general public, increased from $11.9 billions in April to $13.2 billions in October, or by over 10%. This, as the Governor of the Bank later pointed out, was more than would have been required in the normal course of economic recovery. Accordingly, from October, 1958, with the Conversion Loan completed, the money supply was held roughly constant in the face of a continued rise in demand for loans by business, farmers, and consumers, as recovery advanced.

In doing this, the monetary authorities were, in my opinion, doing precisely the right thing. Had they not set about neutralizing the terrific head of monetary steam generated by the previous increase in the money supply, we should have seen an uncontrolled blast of inflation which might well have been disastrous. In spite of some confusion, during which the chartered banks were briefly cast in the unlikely and inappropriate role of monetary managers for the economy, the desired effects were achieved. The confusion has since been clarified in statements, by the fiscal and monetary authorities, to which I have already referred; and, in spite of their early reticence, the accomplishment is, or should be, the occasion for widespread commendation of those authorities for wisdom and courage in the face of mounting pressure from many influential sectors of the economy.

Banks' Vital Role

Now for the chartered banks. It is not commonly recognized that the banks during this trying period also gave a demonstration of timely and effective support at once of the current anti-inflationary monetary policy and of the forces of recovery struggling to free themselves from an extraordinary, and unintended, restriction which arose because of the apparent inability of the economy to mobilize the money supply already in existence.

The over-all restriction of the money supply resulted in a rise in market rates of interest; that is, the price of credit rose, just as the price of any commodity will rise as demand increases relative to supply. Only one "price" in the market for credit was not allowed to rise: the maximum lending rate for chartered bank loans, fixed by The Bank Act at 6 per cent. This, along with other "preferred rates", for government-guaranteed loans, put additional pressure on the one "commodity" in this special market subject to "selective price control"; namely, the banks' stock in trade, bank credit.

As a rule, a seller subjected to price control and rising demand must ration his product among prospective customers, or see his shelves completely cleared of merchandise. Denied the use of the price system to allocate credit in accordance with market forces, banks were indeed forced into the thankless task of rationing credit as best they could among their customers.

But they were able to do more than this. The picture was an economy still depressed to some degree, a constant money supply imposed with good reason by the responsible authorities, and recovery forces within the economy still straining at their financial shackles.

Who supplied the credit necessary to finance the subsequent revival? The chartered banks. To do this they sold securities, mainly government bonds, sometimes at a cost in terms of yield rates well above even their maximum lending rate, in order to raise cash to increase loans to deserving borrowers large and small by almost $1.2 billion between September 30, 1958, and September 30, 1959.

Loan Base Broadened

In other words, the savings of the general public, who bought the bonds, were channelled into new loans to businessmen, farmers, and consumers. There was no creation of new money, only the channelling of savings into loans through the mobilization by the banks of the existing money supply. Idle capacity and idle men were thus put to work, and production was thereby maintained or increased with no undue build-up of inflationary pressure.

Now I must ask you to mark well that the banks have made no particular pretence to honour or glory for the job they did during the period under review. I doubt if any other course of action even occurred to them: they did only what they, as bankers, must always do under similar circumstances if the banking system as a whole is to fulfill its obligation to the community it serves. What is most gratifying is that it all worked out so well. Money supply was held constant, as the authorities quite properly wished it to be; incipient inflation was throttled; business and other borrowers got the means to carry on; undue slack in the system was taken up by further recovery; and we can now look forward to further expansion and more prosperous times — on a sound financial basis.

Before indulging unduly in self-congratulation, it may be well to reflect on some of the lessons which recent experience holds for the monetary authorities and for the chartered banks in combating future booms and slumps.

The first lesson is that there is need for improved communication between the Bank of Canada and the chartered banks. Of course, communication must be a two-way street. I have long deplored the passing of bankrate in Canada from the realm of communication in this sense to a mere shadow, floating ¼% above the market rate for three month Treasury bills. However, we must respect the Bank of Canada's evident determination to avoid even the possibility of a modest departure from the collective judgment of the free market.

Fortunately, the chartered banks are not yet reduced to the interpreting of obscure signs and portents or the reading of entrails to divine Bank of Canada policy; although a cynic might suggest that we have progressed very little beyond the plight of the noble savage watching as in olden times for the occasional smoke signal from the haughty Ottawas. However, in recent months, the Bank of Canada, through its Governor, has in a number of public statements offered some hopeful alternatives. We are assured for example that the money supply will probably rise "modestly" in recession, stay relatively constant in recovery and boom times, and rarely, if ever, fall. In our present situation, for example, this should mean that the current ease in chartered-bank cash will not prompt a "sucking up" of the excess, since that would mean a significant reduction in the money supply. The clear implication is for the banks to use their cash for investment or, when needed, for increased loans. Any future tightness of the money supply will result from market forces on the demand side as economic expansion continues, not from a decrease in the present supply: and here the chartered banks should be as well informed as any outside authority.

Money Supply

Now for the second lesson. Regardless of the clarity of communication itself, there is still some ambiguity in the data communicated. I shall consider only the most important example: the money supply. Through its control of chartered bank cash reserves, the Bank of Canada controls the money supply, allowing of course for any lags in chartered bank adjustment. There are, I believe, two major ambiguities in our concept of the money supply.

The first ambiguity is that the money supply as generally defined omits credit created by other than the chartered banks. For example, it omits credit created by Finance Companies, Caisses Populaires in Quebec, Credit Unions and Provincial Savings Offices in other Provinces, Trust Companies doing a deposit business, and all varieties of department store charge accounts.

The implication of this ambiguity for policy is simply this, that monetary control is inhibited and may at times be ineffective, as well as inequitable, in controlling the money supply in this broader sense. Rather than extend the range of specific government regulation, it might be worth while to require that these lenders (who, in effect, do a banking business so far as the total supply of money and credit is concerned) should, like the chartered banks, be subject to appropriate cash, or other, reserve requirements.

The second ambiguity in our concept of the money supply concerns that well-known but elusive factor, the "velocity of circulation". Clearly the inflationary potential of any given money supply depends not only on the money supply as such but also on its activity; that is, its velocity of circulation.

Our mechanism of monetary control is defective in that it ignores the velocity dimension, and this defect forces us to resort to rough-and-ready, trial-and-error expedients by way of correction. Monetary control would be greatly improved if we could devise a practical formula for reserves against deposits that would take account of changes in the velocity of circulation.

The idea of velocity reserves is not new and from time to time

(Continued on page 31, col. 1)

BANKS MEET TIGHT MONEY CHALLENGE

Millions in bonds sold by banks to provide cash for deserving borrowers

"It is not commonly recognized," said Mr. Muir, "that the banks during this trying period also gave a demonstration of timely and effective support at once of the current anti-inflationary monetary policy and of the forces of recovery struggling to free themselves from an extraordinary, and unintended, restriction which arose because of the apparent inability of the economy to mobilize the money supply already in existence.

"The over-all restriction of the money supply resulted in a rise in market rates of interest, that is the price of credit rose, just as the price of any commodity will rise as demand increases relative to supply. Only one "price" in the market for credit was not allowed to rise: the maximum lending rate for chartered bank loans, fixed by The Bank Act at 6 per cent. This, along with other "preferred rates", for government-guaranteed loans, put additional pressure on the one "commodity" in this special market subject to "selective price control"; namely, the banks' stock in trade, bank credit.

"As a rule, a seller subjected to price control and rising demand must ration his product among prospective customers, or see his shelves completely cleared of merchandise. Denied the use of the price system to allocate credit in accordance with market forces, banks were indeed forced into the thankless task of rationing credit as best they could among their customers.

"But they were able to do more than this. The picture was an economy still depressed to some degree, a constant money supply imposed with good reason by the responsible authorities, and recovery forces within the economy still straining at their financial shackles.

"Who supplied the credit necessary to finance the subsequent revival? The chartered banks. To do this they sold securities, mainly government bonds, sometimes at a cost in terms of yield rates well above even their maximum lending rate, in order to raise loans to deserving borrowers large and small by almost $1.2 billion between September 30, 1958, and September 30, 1959.

"In other words, the savings of the general public, who bought the bonds, were channelled into new loans to businessmen, farmers, and consumers. There was no creation of new money, only the channelling of savings into loans through the mobilization by the banks of the existing money supply. Idle capacity and idle men were thus put to work, and production was thereby maintained or increased with no undue build-up of inflationary pressure.

"Now I must ask you to mark well that the banks have made no particular pretence to honour or glory for the job they did during the period under review. I doubt if any other course of action even occurred to them: they did only what they, as bankers, must always do under similar circumstances if the banking system as a whole is to fulfill its obligation to the community it serves. What is most gratifying is that it all worked out so well. Money supply was held constant, as the authorities quite properly wished it to be; incipient inflation was throttled; business and other borrowers got the means to carry on; undue slack in the system was taken up by further recovery; and we can now look forward to further expansion and more prosperous times — on a sound financial basis."

TRIBUTE TO STAFF

Response to a difficult challenge "exceptional" when there's a job to be done, states General Manager

"It is always a welcome opportunity for me to emphasize to you the unusually fine qualities which the members of our staff possess. When a job needs to be done, difficult though it may be, our personnel—senior and junior alike—respond to an appeal or a directive in a manner which we believe to be exceptional. The past year was one where managers in particular operated under trying circumstances and their performance was most creditable. The attributes of courtesy and consideration never grow unpopular nor shop-worn and I can assure you that the staff of this bank exhibit constantly an intense realization of their value. In so many instances, letters of commendation written to us about members of our staff end as follows: 'I know you must be proud to have a person such as this in your organization.' Well, we are proud of our staff and, on behalf of the executive of the bank, I wish to say simply but sincerely to each and every one: 'Thank you—you have our gratitude and our appreciation'."

HIGHLIGHTS

MR. MUIR:

"From October 1958 the money supply was held roughly constant in the face of a continued rise in demand for loans by business, farmers and consumers as recovery advanced. In doing this the monetary authorities were, in my opinion, doing precisely the right thing. In spite of some confusion, during which the chartered banks were briefly cast in the unlikely and inappropriate role of monetary managers for the economy, the desired effects were achieved. This accomplishment should be the occasion for widespread commendation of those authorities for wisdom and courage in the face of mounting pressure from many influential sectors of the economy."

JAMES MUIR

Chairman and President The Royal Bank of Canada

* * *

"The money supply, as generally defined, omits credit created by other than the chartered banks. For example, it omits credit created by Finance Companies, Caisses Populaires, Credit Unions and Provincial Saving Offices, Trust Companies doing a deposit business, and all varieties of department store charge accounts. The implication of this ambiguity for policy is simply this—that monetary control is inhibited and may at times be ineffective as well as inequitable in controlling the money supply in this broader sense. Rather than extend the range of specific government regulation, it might be worth while to require that these lenders (who, in effect, do a banking business so far as the total supply of money and credit is concerned) should, like the chartered banks, be subject to appropriate cash, or other, reserve requirements."

* * *

"If chartered bank lending rates were made more flexible, most of the difficulties (in allocating the banks' available supply of credit) could be avoided without abolishing the maximum rate principle. For example, a "minimum" ceiling, set at the present 6 per cent, could be made adjustable upward when necessary to a level not more than one percentage point above the 91 day Treasury bill rate or (the same thing) ¾ of a percentage point above the bankrate. Such an arrangement would greatly ease the banks' problems of allocating credit in a tight money situation, and would at the same time make much smoother and much more effective any general policy of monetary restraint to prevent inflation."

* * *

"Clearly the inflationary potential of any given money supply depends not only on the money supply as such but also on its activity; that is, its velocity of circulation. Our mechanism of monetary control is defective in that it ignores the velocity dimension, and this defect forces us to resort to rough-and-ready, trial-and-error expedients by way of correction. Monetary control would be greatly improved if we could devise a practical formula for reserves against deposits that would take account of changes in the velocity of circulation."

* * *

"I would like to refer to the suggestion which I made two years ago that we should make "a study of possible steps to achieve the stature of a real money market, that is, a market that would include commercial paper in the form of bankers' acceptances."

It is our view that the present money market dealing only in Treasury bills and day-to-day loans is inadequate and that smooth and efficient central-bank control requires a market of wider coverage and greater fluidity."

* * *

"It is paradoxical, but nonetheless true, that the economic renaissance in Europe seems now to pose some kind of threat to our increasingly easy North American way of life. Meanwhile, prosperity and increased efficiency have made European nations more receptive to freer trade, including the reduction or removal of war and post-war exchange controls. European developments have also been directed inward, towards greater economic integration, as illustrated by the European Common Market, or the "inner six," and the European Free Trade Area, or the "outer seven" of which Great Britain is a member. In spite of, or better perhaps, because of Canada's obvious interest in the greatest possible degree of multilateralism, she cannot ignore the new "trading clubs," or the possibility that NATO may form the basis for further economic integration on a much broader scale. The present conciliatory attitude of the Europeans provides an opportunity for bold action to turn the new developments into means to freer trade on a broader basis for the benefit of all members of GATT. At the same time, Canada in particular must pay attention to recent developments in Latin America. Current moves to form a Latin American common market and a regional trading group in Central America may pose additional problems: but they also create opportunities. In general then, the new 'trading clubs' in Europe and Latin America should be accepted as a challenge and an opportunity to negotiate for the further expansion of world trade. Even the aggressive tactics of trading-bloc countries in Russia's orbit, and the fantastic growth of Japan as a foreign trader, have their brighter side in a growing market for our exports. It cannot be emphasized too strongly that the removal of trade and exchange-control curbs in Europe and the slow awakening of Russia and the Far East mean the creation of new and exciting opportunities to exploit entirely new post-war markets."

* * *

"I believe that Canadians have the courage demanded by the march of events in the 1960's and the will to achieve the even richer promise of decades still to come. With our material blessings these qualities are all we need to make Canada a leader and an example to all the eager young countries — in Latin America, in Africa, in Asia — which even now are, like us, striving to meet the great problems, and to achieve the even greater rewards, of a sustained, balanced, healthy economic growth in a tough, competitive, but, let us fervently hope, an essentially peaceful economy of nations.

* * *

MR. SEDGEWICK:

"Due to heightened general business activity, loans in all categories and sizes were in strong demand throughout the year and notwithstanding the necessity of adopting restrictive measures from time to time, a sizable increase took place in this department of our business. It is interesting to note that the number of our borrowers in Canada increased by approximately 45,000 during the year."

* * *

The General Manager pointed out that 29 new offices had been opened in Canada during the year and that Canadian branches at the bank's year end totalled 876. Branches abroad numbered 93, making a total of 969. In addition the bank had new branches in preparation, or in negotiation, at 43 other points in Canada. "The demand for banking services continues as new communities appear and we are anxious and willing to provide such services where a reasonable opportunity exists for a

K. M. SEDGEWICK

General Manager The Royal Bank of Canada

fair return. Seven new offices were added to the bank's branch system in the Caribbean area and South America. At present we have eight additional branches in the development stage, which we expect will come into operation during 1960. New main office buildings now nearing completion in Kingston. Ja., and Ciudad Trujillo, D.R., should be ready for occupancy shortly and major additions are under way at a number of other points to accommodate the needs of expanding business."

* * *

"We have an important chain of branches distributed throughout most of the western hemisphere countries. Our managers in these areas are fluent in the language and well versed with local conditions and customs. Where we do not have direct representation, we have prime relations with banking correspondents. To co-ordinate and consolidate the flow of information from these various sources, we have operated for many years special trade development and general credit information departments at our Head Office. We are well equipped to assist exporters and we invite those who have a real interest in new trading opportunities to enlist our aid."

GENERAL MANAGER

K. M. Sedgewick, General Manager, referred to the Financial Statement as follows:

As in other years, I wish now to discuss with you the salient points relating to the 90th Annual Statement of the bank dated November 30, 1959 which is before you. The year under review was not one of monetary expansion—on the other hand — average net Canadian deposit liabilities of the Chartered Banks for the month of November 1959 were lower by some $133 millions than those of the similar month in 1958. As a result, the assets of the bank at $4,129,658,661 were short of the previous year's total by just under $4 millions. Due to heightened general business activity, loans in all categories and sizes were in strong demand throughout the year and notwithstanding the necessity of adopting restrictive measures from time to time, a sizable increase took place in this department of our business. It is interesting to note that the number of our borrowers in Canada increased by approximately 45,000 during the past year and as we have stressed on numerous occasions, it is our purpose to see that our available loaning funds are spread equitably over all segments of our clientele demand.

The Balance Sheet will reveal to you that cash assets, day-to-day loans, and Government of Canada treasury bills amount to $786,885,549 which represents 20.31% of our liabilities to the public. This compares with 22.49% a year ago. Total liquid assets are $2,184,941,955 or 56.41% of our public liabilities as compared with 62.54% in the previous year. This percentage decline was caused by the reduction in bond holdings to provide for the widespread loan demand. Our holdings of N.H.A. mortgages insured by the Government of Canada have shown a 10% increase during the year and now amount to $291,756,158 representing approximately 30% of Canadian bank investments in this form.

DEPOSITS

Deposits placed with us by the Federal Government and by Canadian Provincial Governments increased by $16 millions and $26 millions respectively while those from other banks were higher by $36 millions. Personal savings deposits were up only $3 millions due to unusual Canada Savings Bond investment in November which caused withdrawals from this bank far in excess of those of former years. General deposits declined by $85 millions which is partly attributable to the fact that attractive interest yields were available in a variety of places outside of the Canadian banking system. We are hopeful that in the coming year we will be able to arrange for the return of some of these bal-

(Continued on page 31, col. 3)

The Royal Bank of Canada

JAMES MUIR

(CONTINUED FROM P. 30)

it has acquired distinguished adherents; but so far little serious work has been done to devise a practical system for implementing the idea. Suggested schemes break down under analysis. Nevertheless, we have reason to believe that a workable system of velocity reserves can be devised that would obviate the need for such rough-and-ready expedients, as fixed secondary reserves, ad hoc controls over specific loan categories, as well as all the vague signalling devices that currently indicate changes in the monetary weather.

The third lesson of recent experience is that the course of monetary control would run much smoother if the chartered banks were enabled always to implement Bank of Canada policy by allowing their lending rates to reflect changes in market rates, or under the present rate-fixing system, changes in bankrate. "The market for credit", said the British Radcliffe Committee, "is a single market" and the Governor of the Bank of Canada has recently expressed a similar point of view. But in a single market only one price can rule for any given commodity. It is absurd, therefore, for bank lending rates to be subject to price control while other rates by other lenders are allowed to reflect market conditions.

Why, for example, were loan rates for the Industrial Development Bank raised above six per cent? So as not to be "out of line" with the market; and, of course, the same reasoning applies to the recent increase in the NHA loan rate from 6 to 6¾ per cent.

Surely, the chartered banks with a much more complex problem of loan allocation, should not be forced to remain "out of line" with the market and forced therefore to resort to the clumsy devices of credit rationing. The easy retort that this would only increase bank profits, if true, would be equally true for all other lenders. In any case, no bank or banker has ever urged higher maximum lending rates in order to increase bank profits. In fact, higher rates for loans, in the same credit market, mean higher costs to the lenders; and, for the banks, these would take the form not only of lower prices on security sales but higher interest rates on savings deposits. The latter development would benefit the "small saver" who is surely at least as deserving as the "small borrower".

There would be no "tight money" if the price were right: instead, those willing to pay interest at current market rates would get the funds, those unwilling to pay these rates would postpone expansion until the price of funds became more favourable. Thus instead of rule-of-thumb rationing, banks would be enabled, like other lenders, to allocate funds in accordance with the priorities established by the price system in the market for credit. Moreover, this would also make it possible for the banks to implement Bank of Canada policy, not merely to restrain borrowers through the over-all restriction of money supply, but, through the curb of price, to restrain over-ambitious or uneconomic use of the scarce supply available.

More Flexibility Needed

Some of these considerations may well have been taken into account by the Royal Commission on Banking and Currency (or "Macmillan Commission") in 1933, which stood four to one to repeal the section of The Bank Act which sets a maximum lending rate for the chartered banks. However, if chartered bank lending rates were made more flexible most of the difficulties could be avoided without abolishing the maximum rate principle. For example, a "minimum" ceiling, set at the present 6 per cent, could be made adjustable upward when necessary to a level not more than one percentage point above the 91 day Treasury bill rate or (the same thing) ¾ of a percentage point above bankrate. Such an arrangement would greatly ease the banks' problems of allocating credit in a tight money situation, and would at the same time make much smoother and much more effective any general policy of monetary restraint to prevent inflation.

Fourth, and finally, I would like to refer to the Canadian money market and specifically to the suggestion which I made two years ago that we should make "a study of possible steps to achieve the stature of a real money market, that is, a market that would include commercial paper in the form of bankers' acceptances".

It is our view that the present money market dealing only in Treasury bills and day-to-day loans is inadequate and that smooth and efficient central-bank control requires a market of wider coverage and greater fluidity. In spite of possible revenue losses on individual items, the increased volume is almost certain to ensure that the operation will pay. But, far more important, this expansion of the money market will serve still further to even out the "bumps" in the road of monetary policy which, largely through this and the other imperfections I have mentioned, have continued to plague not only the monetary authorities and the banks but every sector of the Canadian economy.

It can now be revealed that an extensive study of the subject has been made, by highly competent authorities, on behalf of the chartered banks. The information which has been assembled is under review by the banks and the Bank of Canada, and perhaps we can hope that all this patient effort will at last bear fruit.

Bold Action Called For

I turn now to the important decisions in trade policy that lie in wait for us in 1960.

Important decisions on trade policy must be taken, if only because the member nations of the General Agreement on Tariffs and Trade (or GATT) are due to meet in September.

Since their last meeting, the upward trend of costs and prices in Canada, or for that matter in the whole "dollar area," has been accompanied by a recovery in Europe beyond the wildest dreams of those concerned for her recovery after the war. American economic aid to our allies in the earlier post-war years was, of course, only a delayed repayment of the debt due them for holding back, at enormous cost, the black flood of tyranny that threatened us all in 1939 and, more specifically, between June, 1940, and December, 1941. On their part, the recipients will not overlook or forget that this aid provided the keystone of the arch of recovery which they have so well and truly built.

It is paradoxical, but nonetheless true, that the economic renaissance in Europe seems now to pose some kind of threat to our increasingly easy North American way of life. Meanwhile, prosperity and increased efficiency have made European nations more receptive to freer trade, including the reduction or removal of war and post-war exchange controls. European developments have also been directed inward, towards greater economic integration, as illustrated by the European Common Market, or the "inner six", and the European Free Trade Area, or the "outer seven" of which Great Britain is a member.

In spite of, or better perhaps, because of Canada's obvious interest in the greatest possible degree of multilateralism, she cannot ignore the new "trading clubs", or the possibility that NATO may form the basis for further economic integration on a much broader scale. The present conciliatory attitude of the Europeans provides an opportunity for bold action to turn the new developments into means to freer trade on a broader basis for the benefit of all members of GATT.

At the same time, Canada in particular must pay attention to recent developments in Latin America. Current moves to form a Latin American common market and a regional trading group in Central America may pose additional problems: but they also create opportunities.

But here, again, our exporters need more than energy and initiative, if they are to compete with exporters in Europe or the United States: they need adequate export credit facilities geared to this particular type of business. For years I have been urging some kind of private, public, or combined operation in the medium-to-long term export credit field. The new Export Credit Corporation under private auspices is a step towards this goal; but it must find its way, a task made infinitely more difficult at the outset by the recent credit squeeze. Moreover, its success in moving the larger orders requires the active co-operation of the authorities under the 1959 amendments to the Export Credits Insurance Act. Recent experience throws some doubt on the willingness of those who control the policy of the Export Credits Insurance Corporation to use all the powers vested in them by the new legislation governing export credit guarantees.

In general then, the new "trading clubs" in Europe and Latin America should be accepted as a challenge and an opportunity to negotiate for the further expansion of world trade. Even the aggressive tactics of trading-bloc countries in Russia's orbit, and the fantastic growth of Japan as a foreign trader, have their brighter side in a growing market for our exports. It cannot be emphasized too strongly that the removal of trade and exchange-control curbs in Europe and the slow awakening of Russia and the Far East mean the creation of new and exciting opportunities to exploit entirely new post-war markets.

Now, as never before, we need aggressive leadership by government, backed by the self-discipline of all producing groups, if the trade decisions of 1960 are to secure for Canada her traditional position as a top trading nation enjoying, at the same time, one of the highest standards of living achieved anywhere in the world.

Balanced Growth

As I have argued on a number of other occasions, economic growth is the almost inevitable result of right policy in other fields. Fiscal and monetary policy are important not only in securing their immediate end — which should be high-level employment plus stability — they are also important because in achieving these ends they guard against frequent and costly interruptions in the course of economic growth. That is, they ensure sustained economic growth. Similarly, the efficient use of our fully employed resources is equally important if we are to have not merely sustained economic growth but balanced economic growth: in other words, growth not merely in size but in productivity, efficiency, and competitive power in world markets.

Our economy has reached a critical stage where courageous decision and courageous action by business and government alike make all the difference between enterprising growth and craven stagnation.

I believe that Canadians have the courage demanded by the march of events in the 1960's and the will to achieve the even richer promise of decades still to come. With our material blessings, these qualities are all we need to make Canada a leader and an example to all the eager young countries—in Latin America, in Africa, in Asia — which even now are, like us, striving to meet the great problems, and to achieve the even greater rewards, of a sustained, balanced, healthy economic growth in a tough, competitive, but, let us fervently hope, an essentially peaceful economy of nations.

K. M. SEDGEWICK

(CONTINUED FROM P. 30)

ances to us. Our depositors now number well in excess of three million which includes a very substantial percentage of the Canadian depositing public — a fact which pleases us greatly. It is our aim to compete aggressively for continued growth in this field.

EARNINGS

After provision for income taxes and depreciation, our profits for the year amounted to $17,119,140 or $2.83 per share as compared with $15,868,329 and $2.79 per share the year before. Out of the earnings figure, $14,060,359 by way of dividends was paid to our shareholders, this representing $2.02½ per share and an extra distribution of $0.30 per share. This aggregate dividend at $2.32½ compares with $2.25 paid the previous year. There remained an amount to be carried forward of $3,058,781 to which was added a transfer of $3 millions from inner reserves as well as the balance of undivided profits as at November 30, 1958, viz., $562,715. This resulted in a total of $6,621,496 from which the sum of $6,100,000 was transferred to Rest Account leaving undivided profits of $521,496 at the year end. Our capital funds, therefore, have gone through the quarter billion level and now exceed $256 millions, a sizable foundation for the activities ahead.

SHAREHOLDERS

The number of our shareholders showed a small decline during the period under review which is disappointing but those holding our shares embrace an important part of the investing public. Rarely does one peruse any portfolio of securities without seeing holdings of the bank's shares included. Surveys which come to our attention from time to time lead us to believe that Royal Bank stock is regarded as one of the most desirable of equity investment media and we trust that we shall justify without fail this great degree of confidence which is placed in us. Again, I would wish to emphasize how much we appreciate the help which shareholders can render in bringing new clients to the bank.

BANK PREMISES

As at our year end, branch and sub-branch operations in Canada numbered 876 and those in non-domestic areas 93 — an overall aggregate of 969. Twenty-nine new offices opened in Canada during the year and two branches closed. Moreover, as at November 30th last, we had at 43 other points in Canada either new branches in preparation or in negotiation. A new branch operation of interest has been established during the year at Lac Barbel - Lac Jeannine, some 200 miles north of Shelter Bay, P.Q., where substantial iron ore activities are in progress. The demand for banking service continues as new communities — residential or industrial — appear and we are anxious and willing to provide such service where a reasonable opportunity exists for a fair return. You will appreciate, however, that present day construction or rental costs, together with normal operating overhead, demand close examination in our review of prospective branch potential. Our new office in Canada's Capital City, Ottawa, is expected to be ready for occupancy early in 1961 while new buildings will be substantially completed during the coming year in Windsor, Ontario; Brockville, Ontario; Prescott, Ontario; Orillia, Ontario; Edmonton, 105th Street, Alberta and Langley Prairie, British Columbia.

In addition to new construction, improvements to owned and leased premises have involved large outlays and Bank Premises in our Balance Sheet at $45,925,659 increased by approximately $8 millions during the year. A further contributing factor to this increase was the transfer of seven properties for a value of $3,323,559 from our wholly owned subsidiary, Globe Realty Corporation, Limited, to the bank.

ACTIVITIES ABROAD

Seven new offices were added to our overseas system during the fiscal year ended November 30th last. All of these units were opened in the Caribbean area and South America. At present we have 8 additional branches in the development stage which we expect will come into operation during 1960. New main office buildings now nearing completion in Kingston, Jamaica, and Ciudad Trujillo, D.R., should be ready for occupancy shortly, and major additions are under way at a number of other points to accommodate the needs of expanding business.

Political uncertainties and less favourable economic trends in a number of countries where we operate posed problems of varying degrees of difficulty during the year, but on the whole the quality and volume of our non-domestic business and our earnings from this source were maintained at satisfactory levels. Because of the relatively high interest rates which prevailed in the short-term money markets of North America during 1959, fairly sizable blocks of dollars were brought in from Europe for temporary investment. In addition, a certain volume of short-term Canadian money was converted by corporations and individuals into U. S. funds on a swap basis and placed in New York to take advantage of attractive yields in that market. Because of our important correspondent relationships throughout the world we received a share of the banking business arising from these activities in international capital markets.

The Chairman and President has just dealt in broad terms with various aspects of export trade and its importance to the economy of Canada. The overseas development of this bank which dates back more than 60 years followed established or prospective trade channels in areas with sufficient potential to develop a profitable business for the bank. Over a long period trade between Canada and other Western Hemisphere countries has made a significant contribution to the economic growth of Canada. Taking into account the steadily increasing competition we face and the tendency towards development of trading blocks, our exporters must be resourceful and constantly on the alert for every opportunity to develop new outlets if Canada is to maintain her position as a top trading nation.

As you know, we have an important chain of branches distributed throughout most of the Western Hemisphere countries. Our Managers in these areas are fluent in the language and well versed with local conditions and customs. Where we do not have direct representation we have prime relations with banking correspondents. To co-ordinate and consolidate the flow of information from these various sources we have operated for many years special trade development and general credit information departments at our Head Office. We are well equipped to assist exporters, and we invite those who have a real interest in new trading opportunities to come to us and enlist our aid.

STAFF

It is always a welcome opportunity for me to emphasize to you the unusually fine qualities which the members of our staff possess. When a job needs to be done, difficult though it may be, our personnel—senior and junior alike — respond to an appeal or a directive in a manner which we believe to be exceptional. The past year was one where managers in particular operated under trying circumstances and their performance was most creditable. The attributes of courtesy and consideration never grow unpopular nor shop-worn and I can assure you that the staff of this bank exhibit constantly an intense realization of their value. In so many instances, letters of commendation written to us about members of our staff end as follows: "I know you must be proud to have a person such as this in your organization." Well, we are proud of our staff and, on behalf of the executive of the bank, I wish to say simply but sincerely to each and every one: "Thank you—you have our gratitude and our appreciation."

ECONOMIC STUDY

Sudbury Could Support Two 500-Ton Pulp Mills

The forests within economic reach of Sudbury should support two 500-ton-per-day pulp mills.

These mills, if established, could employ up to 2,000 in the mills and another 1,600 in the woods.

This is one of the recommendations for the broadening of Sudbury's economic base made by Battelle Memorial Institute who were retained last fall (**FP**, Sept. 12, 1959) to make a study on the Ontario city area.

The three-month strike in 1958 at the **International Nickel** operation (when 15,500 area residents were idle) emphasized the need for less reliance on Sudbury's major industry.

While the Sudbury area possesses the necessary ingredients for a continued important economic development, the report warns that such growth will not be automatic.

"Other virile communities in Northeastern Ontario are making their own dramatic bid for economic growth.

"For these reasons the area development program must be dynamic, adequately supported and broad-based including all types of economic activity."

The report recommends that suitable land for industry should be zoned. It might also be necessary to have industrial services (water, gas, hydro, sewers) on the site.

Other recommendations to the Sudbury and District Industrial Commission are:

- **Forest resource industries:** Integrated sawmill operations; hardboard and insulated board manufacture; wax paper and other converted paper products manufacturing; miscellaneous wood and lumber products activities.
- **Miheral resource industries:** Mining, concentrating and possible smelting of iron ores; utilization of smelter by-products; foundry sand quarrying and manufacture; lime and cement manufacture; fire brick manufacture; fertilizer manufacture; lead and zinc ore development and processing; electroplating; electrometallurgical processing.
- **Chemical industries:** Electrochemical manufacturing; sulphur dioxide and sulphuric acid manufacture; manufacture of ammonia, oxygen and other industrial gases; synthetic plastics and natural gas-based petrochemical manufacture; creosote operations; anti-corrosive paint manufacture.
- **General manufacturing:** Mining and smelting equipment; machinery and associated hardware manufacturing; foundries, woodworking and machine shop operations; electronics, power tools and automotive accessories manufacturing; apparel manufacturing; meat slaughtering activities; dairy products manufacturing.
- **Increased agricultural production.**
- **Tourism.**
- **Warehousing, freight forwarding and distribution.**
- **Thermal electricity generation.**
- **Construction activities.**

Boost Pipeline Volume To Get Lower Gas Costs

The biggest item in the total price of natural gas to the consumer is transmission and distribution costs, W. D. C. Mackenzie, manager of **Imperial Oil's** western region producing department, told the 48th annual meeting of the B.C. and Yukon Chamber of Mines recently.

Of these charges, the major part is depreciation of the capital cost of the pipeline network, Mackenzie said.

"Since depreciation is a fixed charge, it follows if a very large volume is going through the system the cost of a cubic foot of gas is going to be low — if the volume is small the cost will be high."

"This is the one fundamental I would like to stress — that irrespective of how we slice the problem in the political arena, in the community and in industry, we cannot escape the fact that volume is the dominating factor that determines whether gas is cheap or expensive," Mackenzie said.

In a record program this year more than 100 exploratory wells and more than 100 development wells will be drilled in British Columbia. Total expenditure on exploration is expected to exceed $50 million.

Part of the industry's success so far in northeastern B.C. is because of the favorable geology.

But there is another all-important reason as well, Mackenzie said.

"If there is an unique formula for success, in my judgment it is industry's new-found ability to work in bush and in muskeg."

This ability will be of major importance in the oil and gas search now gaining impetus in the Northwest Territories and the Arctic islands.

Contributing to the oil surplus condition the last few years have been important discoveries made in western Venezuela, the Persian Gulf, Libya, Algeria, France.

Discounts and cut rate price deals are common as marketing pressures are exerted from many sides.

"We cannot expect our markets to increase at the same rate as we are currently finding and developing producibility," Mackenzie said.

"Thus, every province, every oil field, every group of wells, in western Canada, is going to compete for a market or markets that can no longer grow at the fantastic rate they did in previous years.

"Because of this matter of surplus capacity competition has been intensified in all phases of the industry."

Southern Canada Profit Lower

MONTREAL (Staff)—Net profit of **Southern Canada Power Co.** for 1959's first three quarters was $1,452,621 ($2.70 per common share) or 2.5% lower than $1,489,956 ($2.79) in corresponding 1958.

Revenue from sales of electricity was 10.1% in 1959 to $9.8 million. Operating expenses were up 13.1%. Some 3,080 new customers connected in the first nine months last year brought total to 90,109.

Company is controlled by **Shawinigan Water & Power Co.**

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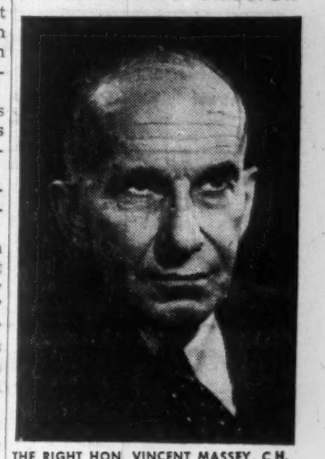

THE RIGHT HON. VINCENT MASSEY, C.H.

National Trust Company announces that The Right Hon. Vincent Massey, C.H., has rejoined its Board of Directors. Mr. Massey was a Director of the Company from 1947 to 1951.

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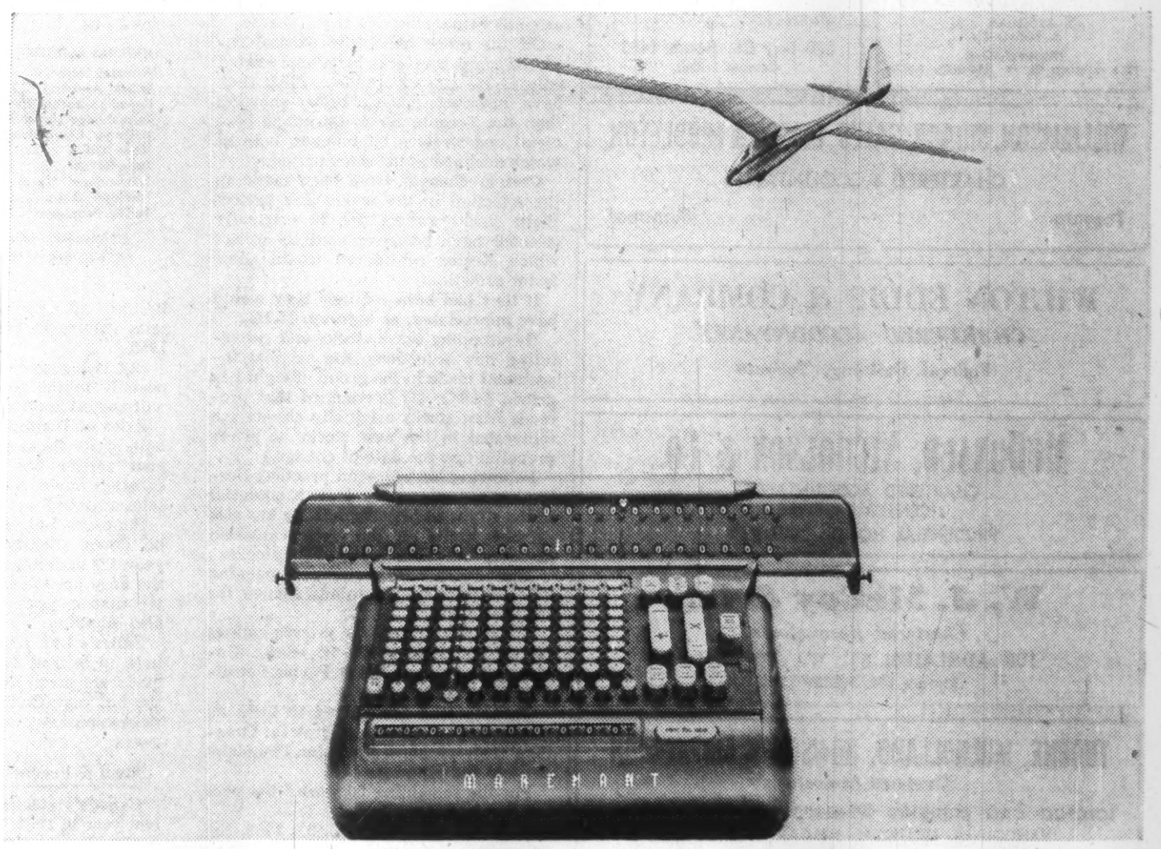

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The 26 stocks Nestor picked:

GROWTH COMPANIES	Price Dec. 31/59 $	(1) Index of Growth	UV-OV Levels $	Above UVL %	To OVL %	Earnings per share (3) Latest Reported Fiscal Yr. $	Interim (months) $	(4) Indicated Dividend Rate $	Price Earnings Ratio	Yield %	(5) Risk
Aluminium Ltd.	32¼	25.7	26-55	24	71	0.74	0.50 (9)	■0.50	43.6	1.55	I
Atlas Steels	26¾	7.4	20-52	34	94	2.04	2.17 (9)	1.00	13.1	3.74	M
Canada Cement	34	5.4	25-55	36	62	2.54	...	1.00	13.4	2.94	M
Canadian Hydrocarbons	11¼	6.8	7-16	61	42	0.35	0.60 (9)	nil	32.1	...	S
Dom. Foundries & Steel	51¾	5.8	32-65	62	26	3.12	...	1.40	16.6	2.70	M
Dominion Stores	51	4.9	50-90	2	76	4.18	1.68 (6)	1.25	12.2	2.45	M
Great Lakes Paper	42	37.9	27-57	56	36	1.72	1.02 (9)	1.60	24.4	3.81	M
Howard Smith Paper Mills	43½	9.9	30-65	45	49	3.09	...	1.20	14.1	2.76	M
Industrial Acceptance	36½	6.8	30-50	22	37	3.59	2.52 (9)	1.60	10.2	4.38	M
MacMillan & Bloedel B	41¼	12.8	28-58	47	41	2.44	...	1.40	16.9	3.35	M
Moore Corp.	41¾	5.6	25-44	67	5	1.53	1.32 (9)	■0.80	27.3	1.92	M
Page-Hersey Tubes	28⅛	7.9	26-46	8	64	1.60	...	0.90	17.6	3.20	M
Powell River	19	18.5	15-34	27	79	0.91	0.57 (6)	0.75	20.9	3.95	I
Simpsons Ltd.	32¼	18.0	22-48	47	49	1.53	0.37 (6)	0.60	21.1	1.86	M
Steel Co. of Canada	86⅜	9.3	52-102	66	18	3.79	...	1.90	22.8	2.20	I
Zeller's Ltd.	33½	9.7	28-45	20	34	2.24	0.58 (6)	1.20	14.95	3.58	M
NATURAL RESOURCE COMPANIES											
Asbestos Corp.	26	11.2	25-60	4	131	2.29	...	1.40	11.3	5.38	I
British American Oil	33¼	37.9	30-60	11	80	1.00	0.41 (6)	1.00	33.2	3.01	I
Canadian Pacific Railway	23¾	31.3	21-45	13	89	2.09	0.81 (6)	1.50	11.4	6.32	M
Falconbridge Nickel Mines	32¼	7.8	22-50	47	55	1.88	0.71 (6)	1.20	17.2	3.72	M
Hollinger Consolidated	27¾	18.0	20-50	39	80	0.50	0.27 (6)	0.48	55.5	1.73	S
Home Oil B	11¼	*	10-30	12	167	d0.50	...	nil	...	...	S
Imperial Oil	36¾	17.6	34-70	8	90	1.61	1.20 (9)	1.20	22.8	3.26	I
International Nickel	104½	11.8	70-130	49	24	2.71	3.99 (9)	■3.00	38.6	2.87	I
Noranda Mines	47¼	15.6	40-76	18	61	2.10	1.78 (9)	2.00	22.5	4.23	M
Pacific Petroleums	11¾	*	10-27	18	130	d0.59	...	nil	...	...	S

(1) Figures indicate, at current growth rate, number of years in which value of equity behind common stock should double. Index of growth is not as significant in valuation of natural resource companies as their holdings of resources.
(2) UV (Under-Valuation) and OV (Over-Valuation) levels are prices at which the particular stock is, adjudged as underestimating or overestimating its rate of long-term growth. See "How to Read the Charts" on opposite page for full explanation of these ratings.
(3) Earnings are for calendar year 1958 except for: Canada Cement (year ended Nov. 30, 1959), Dominion Stores (March 21, 1959), MacMillan & Bloedel (Sept. 30, 1959), Simpsons Ltd. (Jan. 7, 1959), Zeller's (Jan. 31, 1959), Pacific Petroleums (Feb. 28, 1959).
(4) Based on current rate or payments in 1958.
(5) I, M, S, equal Investments, Medium and Speculative quality, respectively. Factors of importance in determining the investment risk are the nature of capitalization (debt, preferred and common ratios), continuity of earnings and dividend, relative size of the firm in its industry, current financial ratios, extent of activity in shares, and its investment and financial sponsorship.
• More than 40 years. ■ U. S. currency. d Deficit.

GROWTH STOCKS

16 Companies Lead the Way

By P. T. DURRANT

Nestor's 26 Selected Growth Stocks made a moderate recovery in the final three months of 1959 following the third quarter's market break and sharp price declines in all sections.

As a group, the 26 stocks improved 4.6% from Sept. 30, 1959 levels; the 16 growth company stocks gained 6.3% and the 10 natural resource companies edged up 1.8%.

But a 13.7% decline in the natural resources issues during the year more than offset a 7.9% rise for the growth companies, leaving the combined 26 stocks fractionally below 1958 year-end levels.

The 16 growth company stocks have set the pace since the series started, climbing to more than double their original value.

On the other hand, the natural resource company stocks have appreciated only 11.3% since December, 1952; they have, however, made a better showing than the Toronto Stock Exchange base metal and western oil indexes, both of which declined in the same period.

Certain changes have been made in the selection in the seven-year period. Eight stocks among the 26 originally selected have been replaced by others which Nestor considered would show faster growth.

If they had been retained they would have appreciated, as a group, 16.1%.

By dropping these stocks and substituting new selections, the original investment made in the group of eight has gained 36.9%. (It is assumed that proceeds from stocks originally chosen are reinvested in the new stocks at prices prevailing on the date of change.)

Following his year-end practice, Nestor has reassessed the growth potential of the stocks in his selection. He has also set new limits for the under-valuation and over-valuation levels of the stocks.

These ratings are preliminary pending balance sheet and earnings figures for the year 1959.

Nestor has revised the growth ratings for all but three of the 26 stocks. Unchanged are **Home Oil B, Pacific Petroleums** and **Zeller's Ltd.**

Three stocks are judged to have an improved current rate of growth: **Canadian Hydrocarbons, Dominion Foundries & Steel** and **Simpsons Ltd.**

For the remaining 20 stocks, the period has been lengthened.

Based on prices of Dec. 31, 1959, the 26 stocks were selling at 19.8 times latest reported earnings — the growth companies at 17.4 times and the natural resource companies at 25.3 (two of the natural resources stocks have no earnings at present).

However, on the basis of **FP** estimates of 1959 earnings, the ratio for the 26 companies drops to 17.8 (growth companies 15.5, natural resource companies 23.5).

At the record high level of March 31, 1959, Nestor's selection was priced at 20.8 times latest reported earnings. The 16 growth companies were selling at 18.2 times earnings and the 10 natural resource companies at 26.8.

A year ago, average price of all 26 stocks was 17.3 times earnings. Growth companies were priced at 16.5 times, natural resource companies at 18.7 times.

Rising market prices in the last quarter resulted in a drop in yields. Average yield for the 26 stocks at Dec. 31, 1959, was 2.88% (2.77% for the growth companies, 3.05% for the natural resources companies). Three months earlier, respective yields were 3%, 2.93% and 3.13%.

At the end of 1958 average yield for the 26 stocks and both sub-groups was 2.82%.

Their growth record:

GROWTH COMPANIES	Dec. 31 1959 $	Sept. 30 1959 $	Dec. 31 1958 $	Dec. 31 1952 $	MARKET PRICE Sept. 30/59 Dec. 31/59 %	PERCENTAGE CHANGE Dec. 31/58 Dec. 31/59 %	Dec. 31/52 Dec. 31/59 %
Aluminium Ltd.	32¼	32¼	31¾	16.79	nil	+1.6	+92.1
Atlas Steels	26¾	24⅞	25½	20¼	+7.5	+4.9	+32.1
Canada Cement	34	27½	34	18⅝	+23.6	nil	+82.5
Canadian Hydrocarbons	11¼	9⅜	7¾	*	+20.0	+45.1	*
Dom. Foundries & Steel	51¾	46¾	41¾	*	+10.7	+23.9	*
Dominion Stores	51	60¾	84¼	14¼	—16.0	—39.5	+257.9
Great Lakes Paper	42	37	35½	*	+13.5	+18.3	*
Howard Smith Paper M.	43½	39¼	40	17½	+10.8	+8.7	+148.6
Industrial Acceptance	36½	34⅞	39¼	15	+4.6	—7.0	+143.3
MacMillan & Bloedel B	41¼	38¼	35¼	17¾	+7.8	+17.0	+132.4
Moore Corp.	41¾	42	30¼	*	—0.6	+38.0	*
Page-Hersey Tubes	28⅛	28¾	31	*	—2.2	—9.3	*
Powell River	19	17	18	11¾	+11.8	+5.5	+61.7
Simpsons Ltd.	32¼	33⅜	32¾	11⅞	—3.4	—1.5	+171.6
Steel Co. of Canada	86¾	79½	68½	*	+8.6	+26.1	*
Zeller's Ltd.	33½	32	35½	18¾	+4.7	—5.6	+78.7
NATURAL RESOURCE COMPANIES							
Asbestos Corp.	26	29	35	25½	—10.4	—25.7	+2.0
British American Oil	33¼	34	39¾	20⅝	—2.2	—16.4	+61.2
Canadian Pacific Rlwy.	23¾	25½	28	32¼	—6.9	—15.2	—26.4
Falconbridge Nickel M.	32¼	26¼	28½	22½	+22.8	+13.1	+43.3
Hollinger Consolidated	27¾	29⅜	31¼	15½	—5.5	—11.2	+79.0
Home Oil B	11¼	11¼	19¼	*	nil	—41.6	*
Imperial Oil	36¾	36¾	45	35¾	nil	—18.3	+2.8
International Nickel	104½	88	85⅜	*	+18.7	+22.4	*
Noranda Mines	47¼	49¼	52⅛	37½	—4.1	—9.4	+26.0
Pacific Petroleums	11¾	11⅛	18	12	+5.6	—34.7	—2.1

Note: Price adjusted for stock splits where applicable.
*Not then selected.

Outlook:

Retailing:

Nestor's three merchandising securities are all expected to report higher sales volume in 1959 as compared with 1958.

But rising costs and competition, especially in the food retailing business, will curtail profits.

Sales of **Dominion Stores** in the first half of its fiscal year were up from a year earlier but higher costs pushed earnings down. Net profit per dollar of sales dropped to 1.42c from 2.07c.

Simpsons Ltd. earnings for 1959 will be down slightly from the previous year, **FP** understands. Sales increased — the busy pre-Christmas period was better than a year ago — but costs are also climbing.

Zeller's Ltd. reported sales and earnings up in first half of the year with a moderate profit increase anticipated for the full year. Company plans a substantial expansion program in the next few years.

Steel & Products:

Canada's steelmakers had an excellent year in 1959. The steel industry has operated in excess of rated capacity for the past several weeks; capacity operations are seen at least until the middle of this year.

The two basic steel producers in Nestor's selections — **Steel Co. of Canada** and Dominion Foundries & Steel — will report much better earnings than in 1958. Stelco turned out a record tonnage of steel ingots in 1959; Dofasco increased its capacity and operated at a high level throughout the year.

Progress of **Atlas Steels** (leading producer in the specialty steel field) is reported in this issue.

Page-Hersey Tubes over-all results for 1959 are expected to be about the same as in 1958. If current gas export applications are approved, company's partly-owned subsidiaries may look forward to substantial pipeline orders.

Pulp & Paper:

Nestor's selections include four companies in this industry. Two of them, MacMillan & Bloedel and **Powell River Co.** have recently merged. MacMillan & Bloedel's profit for fiscal year ended Sept. 30, 1959, was $2.44 per class B share ($1.53 year before).

Canadian newsprint mills operated at about 85% of capacity in 1959. Output should be higher in 1960.

Loss from U. S. dollar discount continues to squeeze profits. There have been signs in recent weeks that the premium on the Canadian dollar may be dropping slightly.

Great Lakes Paper's sales were higher in 1959 than the year before, but net may be down. Powell River Co. will likely report record newsprint sales with earnings up moderately.

In the fine paper field, **Howard Smith** is optimistic about 1960 demand for fine papers. A slight gain in sales was estimated for last year. Since little fine paper is exported, company is not affected much by the Canadian dollar premium.

Mining & Metals:

Rising demand for nickel and improved prices for copper and platinum metals made 1959 a much better year for the base metal producers. Nestor's two choices in this industry — **International Nickel** and **Falconbridge Nickel Mines**

(Continued on page 33)

Performance:

How They've Fared

Up 69.5% Since They Were Chosen
Dec. 31/52 - Dec. 31/59

	Growth Companies %	Natural Resource Companies %
Selected Growth Stocks	+105.8	+11.3
The Averages	+64.5 (a)	—5.3 (d)
	+53.3 (b)	—16.0 (e)
	+52.7 (c)	+25.7 (f)

Down 0.4% Since Year Ago
Dec. 31/58 - Dec. 31/59

	Growth Companies %	Natural Resource Companies %
Selected Growth Stocks	+7.9	—13.7
The Averages	+3.0 (a)	—1.4 (d)
	+7.9 (b)	—23.2 (e)
	nil (c)	—6.2 (f)

Up 4.6% in Last Quarter
Sept. 30/59 - Dec. 31/59

	Growth Companies %	Natural Resource Companies %
Selected Growth Stocks	+6.3	+1.8
The Averages	+4.1 (a)	+5.4 (d)
	+8.4 (b)	+2.6 (e)
	+2.9 (c)	—5.6 (f)

Note: The averages use are:
(a) Toronto Stock Exchange Industrials Index.
(b) Montreal Stock Exchange Indust. Index.
(c) DBS 92-stock Investors' Price Index.
(d) TSE Base Metals Index.
(e) TSE Western Oils Index.
(f) MSE Golds Index.

Figures for growth stocks are based on assumption that equal amount of money invested in each stock in the list.

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This is an exclusive series on 26 Selected Growth Stocks chosen by one of the continent's most prominent and successful investment advisers. Each company will be reviewed here quarterly. This series does not constitute a recommendation to buy

SELECTED GROWTH STOCKS

IAC Net About the Same as '58; Bigger Volume Forecast for '60

- *IAC subsidiaries increase share of total income . . .*
- *Atlas Steels' sales, earnings up sharply over 1958 . . .*

By NESTOR

INDUSTRIAL ACCEPTANCE CORP. 1959 earnings available for common stock were "about the same" as the previous year, company estimates.

In 1958 company had a net profit of $10.7 million, equal to $3.59 per share on the basis of 2,731,646 shares then outstanding.

Rising cost of money is leaving an unmistakeable stamp on company's operations. IAC this month sold $10 million 6¾% 20-year debentures at 99 to yield about 6.80%. It sold $5 million 20-year notes at 6½% in December and $10 million 20-year debentures on 6% yield basis in June.

The new debentures are non-callable for refunding purposes for the first 12 years. Otherwise they are redeemable at 105¾, the premium decreasing 35c annually to par in 1977.

A purchase fund is provided under which company is obliged to use in each of the years 1961 to 1979 inclusive an amount equal to 4% of the principal amount for purchase and retirement of debentures if available at a price not exceeding 99.

In the first nine months of 1959, interest on all IAC notes at $11.5 million and debenture interest at $2.5 million were up $2.6 million or 23% over corresponding 1958. Company has been able to offset this in part through higher charges to its customers.

Growing contribution by IAC's two major subsidiaries — Niagara Finance Co. and Merit Insurance Co.—is helping over-all results. In the first nine months last year, the two contributed 31% of total earned income compared with 26% in corresponding 1958.

In 1960 company and subsidiaries expect a greater volume of business than in the past year.

While competition is "formidable", IAC is confident it will continue to enhance its position in its field. It believes over-all growth of the market will provide a substantial source of business for all engaged in supplying money for financing of durable goods.

Company officials point out that, by 1970, Canadian passenger car population could reach the ratio of 3.08 people per passenger car, attained in the U. S. in 1958.

If this were the case and if IAC did no more than maintain its present share of the market, it would then be doing an annual volume of $450 million compared with $240 million at present.

At recent market price of $35⅞, common stock is 20% above UV level ($30), could rise 39% before reaching OV level ($50). Price is 10 times 1958 earnings of $3.59 per share. Yield is 4.46% at indicated annual dividend rate of $1.60 per share. Price in 1959/60 has ranged between a high of $41¾, a low of $32¾.

• • •

ATLAS STEELS' results for 1959 will show marked improvement over 1958. Sales will likely approach the levels of 1957, while net earnings should be even better than two years ago.

Estimates for 1959 indicate that last year's sales were in the region of $43 million, up 30% from 1958's $33 million. It is calculated that earnings will be around $3 million or approximately $3 per share.

These figures compare with 1957 sales of $43.2 million, net profit of $2.7 million ($2.49 per share) and with 1956's record $45.1 million sales, $4.2 million net ($4.46 per share).

In the first nine months of 1959, sales were 38% above a year earlier at $31.8 million while net profit was up 83% at $2,365,000 ($2.17 per share).

Operations continued at a high level in the fourth quarter last year. There was some slowdown in sales to the auto industry as manufacturers reduced output during the U. S. steel strike. However, Atlas expects to make up for this lag in the coming months as auto makers step up production.

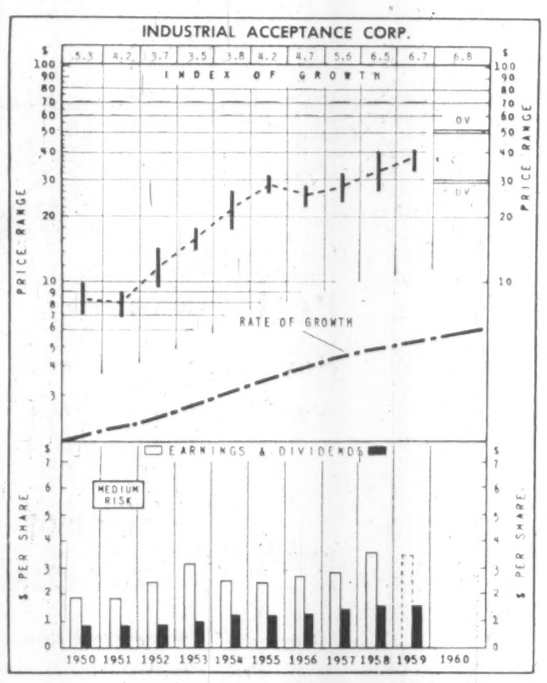
Order backlog at end of 1959 was higher than a year ago; in fact, the volume of unfilled orders is substantially greater now than it has been for more than two years.

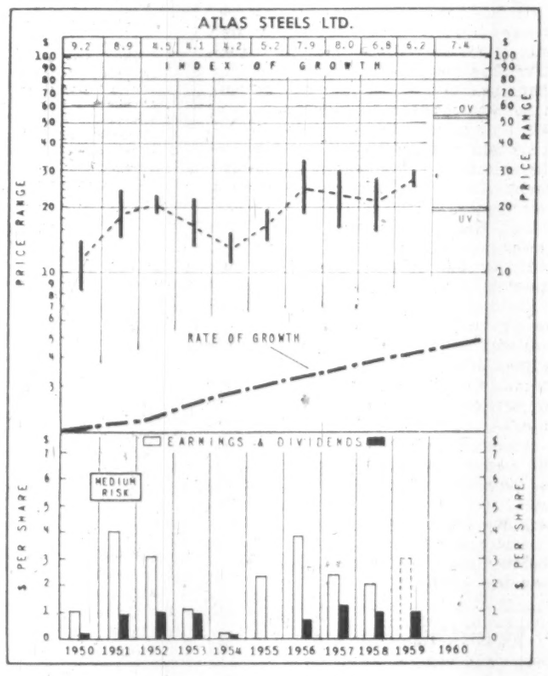
Company looks forward to 1960 as being "as good as, or better than, 1959."

Capital spending this year will be devoted mainly to improvements in present equipment and in the marketing set-up. It is understood company hopes to spend quite substantial amounts on expansion of facilities in the next five to 10 years.

Research and field testing on new products now in progress include work on a mining drill steel; on a group of "hot-work" steels; and on stainless steels for the aircraft industry and for turbine engines.

At recent market price of $25½, common stock is 28% above UV level ($20), could rise 104% before reaching OV level ($52). Price is 8.5 times estimated 1959 earnings of $3.00 per share. Yield is 3.92% at indicated annual dividend rate of $1 per share. Price in 1959/60 has ranged between a high of $29½, a low of $24.





How to Read Nestor's Special Stock Charts

INDEX OF GROWTH: The rate at which the value of the equity behind the stock is doubling as determined by the growth rate at which it entered the year. A figure of 5.6 for the present year would indicate that at its current growth rate the equity value is doubling every 5.6 years.

PRICE RANGE: The annual high, low and mean price. Monthly ranges for the current year.

UNDERVALUATION AND OVERVALUATION PRICE LEVELS: Shown by the narrow horizontal lines above and below the stock's price range indicating price at which the particular stock is adjudged as underestimating or overestimating its future rate of growth. A stock showing a fast growth rate will sometimes anticipate growth by two or three years. In this case it may not be so attractive a purchase relatively as some other fast-growing stock that is not anticipating its growth beyond the immediate present. Other factors such as rate of growth and investment quality will also enter into the comparison an investor will want to make.

Without these UV or OV levels a current quotation of, say, 55 or 75 would carry no significance regarding long-range value. The UV/OV levels also permit judgment as between one stock and another. They are not designated points of purchase or sale nor do they attempt to show what will be a stock's bottom or top figures in any given year.

RATE OF GROWTH: The rate as based on Nestor's tests at which the company is showing underlying or long-term growth. This will determine the price trend of the company's common stock over a period of years and in most instances the trend of dividend payments.

**Background and principles behind the selection by Nestor were discussed in a special article in FP, Jan. 10, 1953. A limited number of reprints are available on request.*

16 Companies Lead the Way

(CONTINUED FROM PAGE 32)

— were able to boost output sharply.

In Inco's case, earnings will be substantially above 1958's $2.71 per share. Heavy write-offs will hold Falconbridge's net close to previous year's levels.

Hollinger Cons. depends for its earnings almost entirely on success of its iron ore operations. **Iron Ore Co. of Canada** — in which Hollinger has 17.7% direct and indirect interest — had the biggest ore shipping year in its history.

Aluminum Ltd. is expected to report about the same earnings as in 1958. Year 1959 saw progressively stronger world aluminum markets; signs for the future are felt to be encouraging.

Building Materials:

Asbestos Corp. earnings in 1959 will almost certainly be lower than previous year. Shipments were about the same but costs were higher; further cost increases are expected in 1960. Competition in the industry is keen.

Canada Cement operated below capacity but at efficient rates last year. Earnings were down slightly from 1958. Company faces increasing competition in its field.

For the coming year, a further rise in annual volume of construction is forecast.

Oil & Gas:

The two integrated oil companies in this group — **British American Oil Co.** and **Imperial Oil** — are both expected to report higher sales and earnings in 1959 compared with the previous year.

Imperial looks for further growth in all phases of its operation. Much will depend on continued expansion of the crude oil market, company says.

B-A's gas interests are providing an increasing source of income.

Canadian Hydrocarbons boosted profits substantially in 1959, reflecting improvements in supply of propane and increased sales.

Home Oil's major hope for profits is keyed to initiation of dividends by Trans-Canada Pipe in which it has 17% interest. Pacific Petroleums is looking for increased gas prices and higher oil deliveries to improve results.

Miscellaneous:

Industrial Acceptance Corp.'s earnings available for common shares in 1959 were probably about the same as in 1958. Company's current position is reviewed in this issue.

Moore Corp.'s sales and earnings for first nine months of 1959 were appreciably ahead of comparable 1958 period. Company said there was every indication that business would continue at a high level for remainder of the year.

Rail earnings for **Canadian Pacific Railway** rose steadily in 1959; in first 10 mos. they were 3.2% above previous year. However, half year net was down due to decline in non-rail income. Outcome of current labor talks could have far-reaching effects on this year's cost picture.

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Canadian Auto Production

	Week ending Jan. 16	Same week 1959	Year to date 1960	Year to date 1959	% change to date
CARS					
General Motors:					
Buick	347	412	688	927	
Chevrolet	2,315	2,162	4,483	4,859	
Oldsmobile	457	486	891	1,068	
Pontiac	1,719	1,402	3,423	3,104	
	4,838	4,462	9,495	9,958	—5
***Ford:**					
Ford	1,348	882	2,773	1,904	
Mercury	150	115	298	233	
Meteor	785	444	1,509	977	
Monarch	155	127	291	267	
	2,438	1,625	4,871	3,518	+38
Chrysler:					
Chrysler	120	129	236	339	
DeSoto	81	21	129	68	
Dodge	500	328	968	990	
Plymouth	726	240	1,394	783	
	1,427	718	2,727	2,180	+25
Studebaker-Packard:					
Studebaker	103	160	103	352	—70
Total cars	8,806	6,965	17,196	16,008	+7
TRUCKS					
General Motors	997	783	1,910	1,776	
Ford	294	160	579	385	
Chrysler	190	150	364	300	
International	274	....	549	....	
Total trucks	1,755	1,093	3,402	2,461	+38
Total cars, trucks	5,723	8,058	20,598	18,469	+12

*Includes Edsel production, 1959 model year.
Source: Canadian Automobile Chamber of Commerce.

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Glens Falls Now Own 60% Of National

Control of **National Life Assurance Co.**, Toronto, has been acquired by **Glens Falls Insurance Co.**, Glens Falls, N.Y.

Companies first became identified with each other in the spring of 1958 when Glens Falls bought a 25% interest in the Canadian company from Harold R. Lawson, National Life's president, at $450 a share (**FP**, May 24, 1958).

An offer to minority shareholders of National Life to sell their shares at the same price was subsequently taken up, increasing Glens Falls' holdings to 45% of the 10,000, $100 par National Life common shares then outstanding.

Now, by a series of further stock transactions with National Life management, Glens Falls has emerged with a 60% interest. Price was not revealed, but recent market has been about $550 per share.

Mr. Lawson and M. Wallace McCutcheon, chairman of the National Life board, have also become substantial shareholders of Glens Falls, and both are now on the U. S. company's board.

No changes are contemplated in National Life's board, which since mid-1958 has included George D. Mead and George I. Davis, the respective president and chairman of the executive committee of Glens Falls.

Although the majority of National Life's capital stock will no longer be held in Canada, a proposed 10-for-1 stock split will mean that nearly 40,000 shares can find wide dispersion among Canadian owners, company says.

Glens Falls' increased interest will also result in a greater emphasis on sale of the Canadian company's life insurance and annuity lines in the U. S. through Glens Falls' extensive agency organization, it says.

Sale of life insurance in the U. S. got under way late in the spring of 1959 and has up to now been confined to New York State only.

Company is licensed to do business in 19 states and has already begun to expand into New Jersey.

National Life reports new business written during 1959 up 30% over 1958's $65.3 million.

Premium income from operations in both Canada and the U. S. rose to $14.6 million in 1959, compared with previous year's $10 million.

Assets totaled $59 million at Dec. 31, a gain of $10 million over the year.

Last year's figures are not available for Glens Falls' operations. During 1958, company's premium income amounted to $85 million, and assets increased by $15 million to total $165 million.

Premiums written by Glens Falls in Canada in 1958 included $275,567 fire, and $85,704 auto.

Organized in 1949 to do fire and casualty business, company has over 8,000 agents under contract. Its original partnership with National Life followed a general trend in the U. S. for general insurance and life companies to get together.

Worth Noting

Financing agreements and changes in financing deals, major changes in capital, filing statements are listed as reported by the Toronto and Montreal exchanges, Ontario Securities Commission.

ATLANTIC COAST COPPER, payment received covering option installment of 100,000 shares at $1 a share.

CAN-ERIN MINES, TSE filing statement in respect of new management contract with **Trans-Ocean Exploration & Management**.

CHIB-KAYRAND COPPER MINES, option installment of 100,000 shares at 22c a share not exercised and agreement terminated.

CONSOLIDATED GOLDEN ARROW MINES, payment received covering option installment of 200,000 shares at 25c a share.

IRISH COPPER MINES, transferred 120,000 shares of **St. Patrick's Copper Mines** to **Irish Life Assurance Co.** in consideration for additional loan to St. Patrick of £550,000.

NEW ROUYN MERGER MINES, option installment of 200,000 shares at 25c a share not exercised and notice of default given.

RAINVILLE MINES, option granted to **Canadian Malartic Gold Mines** and **Frobisher Ltd.** on 192,438 shares at 30c a share in consideration for advance of $50,000 for diamond drilling program has not been exercised and agreement terminated.

SOUTHERN UNION OILS, payment received covering option installment of 100,000 shares at 50c a share, option payment of $6,000 made on 12 claims in Poirier township, Quebec.

SUNBURST EXPLORATION, release of 697,500 shares from escrow.

TEAL EXPLORATION, prospectus filed with OSC in respect of underwriting of 100,000 shares at 20c a share and 100,000 shares at 25c a share with options granted on further 935,495 shares at 30c to 75c a share.

TERRITROY MINING, TSE filing statement in respect of change in control and in board of directors; assignment to **Consolidated Mogul Mines** of outstanding options on 750,000 shares at 55c to $1.15 a share.

TRANS-CANADA EXPLORATIONS, received dividend of $150,000 from wholly-owned subsidiary **Uranium Track Lines** and subsequently sold its entire interest in the subsidiary to **Consolidated Denison Mines** for $100,000.

Gold Bars Quoted

Rate Reported by Doherty, Roadhouse & Co., Toronto.

Canadian kilo bars of gold approximately 32 oz each

Jan. 19, 1960

	Bid	Asked
	—per oz.—	
Latest week	$33.20	$33.50
Previous week	$33.25	$33.55

Market Comment

What stocks and bonds are doing and what prominent observers say

Since it established its all-time high in the first trading day of this month the Dow-Jones industrial index has tumbled 40 points. The extent and persistence of the downtrend exceeds the dimensions of just a technical set-back. The market is definitely adjusting to a set of less favorable investment conditions. These have to do more with the money market trend and the expected impact of competitive conditions at home and abroad on corporate earnings potentials than with the anticipated business tempo itself over the first half year.

There have been some very sizeable blocks of key U. S. stocks thrown on the market during the last two weeks. For the first time in many months the market has not been able to absorb the offerings handily.

There is a good chance the current tumble will climax in a burst of selling soon. The big question is whether the 630 D-J level — seen the next important resistance level — will be penetrated at this time.

Canadian stocks are generally showing considerable resistance to the U. S. trend. But they will not be able to get anywhere on the upside until New York stabilizes.

• • •

GREENSHIELDS & CO. (Montreal)

One reason affecting the performance of Canadian stocks in 1958 and 1959 has been the substantial decline in U. K. and other European buying; this was due not only to the unfavorable conditions affecting certain Canadian natural resources industries but also the rival attraction of investment in Europe itself.

Net purchases of Canadian equities by foreign investors other than in the U. S. totaled $120.4 million in 1958 and are estimated at $23.7 million for the first 10 months of 1959. At the same time European investors focused their attention on domestic shares and it is significant that stock market averages advanced in 1959 by nearly 50% in London, Amsterdam and Paris and by over 70% in Frankfurt.

These sharp gains have considerably reduced the yields on European stocks and, in many cases, these are now lower than the corresponding yields available in the U. S. and Canada. It is not surprising under these circumstances that the London premium on the security dollar has recently risen, providing tangible evidence of better British demand for North American stocks.

The London "Times" of January 8 emphasizes that this demand has been dictated not by fears for sterling nor by the belief that growth prospects are greater for U. S. or Canadian stocks than for British shares. To quote the "Times": "It has arisen simply as a result of a search for extra income. It can therefore be regarded with equanimity".

• • •

THOMSON & McKINNON (New York)

Judging from recent action, stock market observers can be pardoned if they perceive a little tiredness. Nevertheless, it is not characteristic for a major rising trend to just fizzle out. On the contrary, it is much more likely to end rather suddenly with a deluge of selling far greater than the moderate pressure in evidence during the last week.

To be sure, some of the customary statistical yardsticks definitely indicate caution. Price-earnings ratios are high in general albeit there are numerous exceptions; bond yields are solidly above the average return on equities and the chart pattern is beyond anything yet experienced.

Balancing these however are the facts of persistent inflation, a pyramiding of institutional assets seeking placement, ever-rising incomes and expanding markets here and abroad sparked by a fantastic array of new services and products.

The much-feared, cost-price squeeze has not actually materialized; so far automation is more than holding its own. The proof is easy to find merely by reading corporate earnings reports.

If it is indeed true that there is a mounting volume of U. S. capital invested abroad, there is a good reason for this aside from the publicized idea that it is solely a move to escape high domestic labor costs. Most of the free world is now experiencing for the first time the dynamic effect of American capitalism which is based on the idea of easy credit to consumers.

Additionally, many countries have complex and discriminatory restrictions on capital movements. It is easier to work from within than outside these barriers. And it is increasingly evident that this export of money is not a one-way affair.

American securities are still more widely held throughout the world than any others and foreign firms, particularly British, have heavy investments in U. S. subsidiaries.

A recent announcement is most illuminating. Dollar Land Holdings, Ltd., a new English concern, has arranged to purchase Cross County Shopping Center, a major development just north of NYC for $22.5 million. Last year, developers of Grand Central City disclosed a $25 million equity investment by another London investment outfit. One could cite also such a giant as Bowater Paper which has been expanding its U. S. plant complex in recent years.

As for Canada, there has been a two-way flow of capital for years. Because of disparity in size and because Canada is a natural resource nation, U. S. investments have been much greater in volume but Canadian investors have certainly shown no hesitancy in sending their money over the border.

On this side the St. Lawrence Seaway has sparked a new surge of interest in such promising Canadian growth enterprises as Dominion Steel & Coal, Dominion Stores, Dominion Tar & Chemical, Hollinger Consolidated, Dome Mines and a host of others.

Some of the recent buying has been spurred by concern over inflation in the U. S. but the sounder motive of capital gains through economic growth is still the chief factor.

• • •

DONALD M. M. ROSS; Moss, Lawson & Co. (Toronto)

1959 can be marked down as the year in which the postwar bull market in Canadian stocks finally ran foul of competition . . . both from within and without.

From within . . . the year saw several groups of stocks priced down drastically as ruggedly competitive conditions played hob with the profit margins of many companies. This despite the fact that 1959 was a year of general economic recovery.

Real pressure is now on the management of such companies. How they react to the situation, in their policies and planning, will determine, to a great degree, the extent of price recovery in many depressed stocks.

From without . . . stocks had to compete with tight money and sharply higher bond yields. Plenty of money was taken out of, or diverted from, the stock market to take advantage of 6% yields on government bonds and even higher returns on corporate debt.

Probably for the first time since it was instituted, the income-tax credit on stock dividends has lost much of its influence under the impact of historically high yields on fixed income investments.

Just as industry has been compelled once again to deal with the realities of competition, so must the stock market cope with the fact that the postwar honeymoon of easy money ended in 1959. This observer can regard this development as constructive and highly encouraging if it brings common stocks back to a basis which recognizes that, in the final analysis, the basic purpose of investment is to produce income.

Lulled by successive years of rising stock prices into an arrogant disdain of income, the slavish devotees of common stocks now have to face up to the hard competitive fact that, given the opportunity of high income, a great host of Canadian investors still prefer the safety of bonds to the uncertainties of low-yielding growth stocks.

Newsprint Output in 1959 Reached 6.4 Million Tons

MONTREAL (Staff) — A fourth consecutive record month in December lifted Canada's 1959 newsprint output to a near-record 6.4 million tons.

This strong showing contributed to an improved fourth quarter for the huge pulp and paper industry — our largest exporter — and apparently enabled the average company to hold full-year profits in the same range as 1958's.

(For details of company experience see page 26.)

Newsprint Association of Canada figures show last year's output as 6,394,172 tons or 4.9% higher than 6,095,553 in 1958.

Record year: 6,468,815 in 1956.

Mills operated at an average 85% of capacity during 1959 and 84.2% in 1958.

Industry's production had its best December in history, following similar records in September, October and November (**FP**, Dec. 19).

U. S. consumption, which accounts for most of our newsprint, hit a record in 1959 which it is expected to top in 1960. This should further boost Canadian production.

The very large increases in December result partly from decreased consumption caused by a New York newspaper strike in December, 1958.

For the long run, Canadian producers can take comfort from the new Food and Agriculture Organization report that world consumption of paper should double by 1975.

Here are statistical details on the Canadian industry:

	DECEMBER			FULL YEAR		
	1959	1958	Incr. %	1959	1958	Incr. %
	—Tons—			—tons—		
Output	538,450	476,232	13.1	6,394,172	6,095,553	4.9
Shipments to U. S.	435,937	391,250	11.4	5,117,766	4,826,696	6.0
Total shipments	551,807	494,253	11.6	6,425,283	6,043,316	6.3
U. S. cons'm.	616,258	529,260	16.4	7,151,461	6,644,276	7.6

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CONSOLIDATED MINING & SMELTING—Equitable Securities Canada Ltd.

CANADIAN CELANESE LTD.—Watt & Watt, 6 Jordan St., Toronto.

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DU PONT OF CANADA—Equitable Securities Canada Ltd.

1960—A YEAR OF GROWTH—Morgan & Co.

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114 Stocks Yield Averages 4.51%

The average yield on 114 dividend-paying stocks on the Toronto Stock Exchange, as compiled by **Moss, Lawson & Co.**, on the prices of Jan. 18 was 4.51%, up .04% from the previous week.

The current yield compares with 4.44% one month ago and 4.06% in the corresponding week last year.

Here is the yield by the various groups:

	Jan 18 %	Week Ago %	Month Ago %	Year Ago %
Common	4.12	4.04	3.95	3.66
Pfd. & A	5.40	5.39	5.12	4.78
Mining	5.12	5.19	5.46	4.76
Banks	3.34	3.31	3.23	3.18

Unlisted Mines and Oils

(Compiled from Quotations by G. E. Leslie & Co., Montreal)
January 18 1960

Stock	Bid	Of'r	Stock	Bid	Of'r
Alsab	25	30	Lk Chib	—	15
Amal. Mg.	—	55	Main Oka	60	70
Aconic	20	30	Martin Bird	5	7
Aconic vtc	20	30	Matt Lk	6	6½
Arnora	1	2	Matt Ex	18	22
Assce Devp	9	11	Murray M	34	37
Atlas Chib	3	6	Monor	34	42
Baid Mtn	4	6	Miller Cop	5	8
Broan'n Ch	7	10	Natl Mal	8	11
Big Nell	15	25	Nipiron	10	14
Bracemac	19	22	Nrth Matt	13	16
Cdn Jave	101	102	Oklend	5	7
Cap Oil	20	30	Pascalis	15	20
Cns Vauze	80	90	Quedon	—	5
Coper-stm	—	35	Quejo	3	6
Dauphin	10	15	Rand Mal	5	7
Franksin	—	30	Sheraton	—	45
Gibson	3	6	St Jude	3	5
Glencona	1	1	St Helen	—	25
Hull Iron	135	145	Scott Chib	2	4
Imp Min	7	15	Starlight	2	4
Independ	7	10	Tarpoint	1	3
Kenmac	2	4	Valmont	8	12
Lk Sup Iron	10	20	Wm Leys	2	6
Lun Echo	25	30	Yng Dave	15	20

Record of Financing

Sales by Municipalities, Provincial and Dominion Governments, Offerings of Corporations and Securities.

DOMINION

Government of Canada Treasury Bills — Due April 8, 1960 and July 8, 1960, $120,000,000. Issued Jan. 7, 1960. Sold to yield 5.14% and 5.53%.

Government of Canada Treasury Bills—Due April 14, 1960 and July 15, 1960, $135,000,000. Issued Jan. 14, 1960. Sold to yield 4.82% and 5.08%.

CORPORATE

Industrial Acceptance Corporation Ltd. —6¾% debentures, to mature Feb. 1, 1980, $10,000,000. Dated Feb. 1, 1960. Offered at $99.00 and accrued interest to yield approximately 6.84% by Greenshields & Co, Inc., Wood, Gundy & Co. Ltd., Nesbitt, Thomson & Co. Ltd., W. C. Pitfield & Co. Ltd., Dominion Securities Corpn. Ltd., A. E. Ames & Co. Ltd., L. G. Beaubien & Co. Ltd., Midland Securities Corpn. Ltd., James Richardson & Sons, Rene-T. Leclerc, Inc., Cochran, Murray & Co. Ltd., Eastern Securities Co. Ltd., Yorkshire Securities Ltd., Tanner Bros. Ltd. and Pemberton Securities Ltd.

Dividend Changes

HAHN BRASS — Common, 15c payable April 1 to holders of record March 10; ex-dividend March 8. Previously, stock dividends of one, 5% second preference share for each 5 common shares held were paid Feb. 3 and July 1, 1959. Recent price: $12.

INVESTORS MUTUAL OF CANADA — Special and common, 8½c payable Feb. 10 to holders of record Jan. 29. In 1959, company made payments of 8c per share on Feb. 11, May 13 and Aug. 12 and, 9c per share on Nov. 11. Bid: $11.12. Ask: $12.02.

TRANS CANADA CORPORATION—Common, 25c payable April 1 to holders of record March 15. In addition, quarterly dividends of 25c will be paid July 1, Oct. 1, 1960 and Jan. 4, 1961. In 1959, a dividend of 40c was paid Jan. 9. Recent price: $32½.

UNITED KENO HILL MINES—Common, 10c payable April 25 to holders of record March 31; ex-dividend March 29. Total paid or payable to date in 1960, 16c plus 4c extra; total paid to same date in 1959, 12c; total paid in 1959, 24c. Recent price: $6.30.

IDB Loans Off, Repayments Rise

MONTREAL (Staff) — Loans and investments of **Industrial Development Bank** Dec. 31, 1959, were $97,854,870, down 0.2% from $98,055,306 at Nov. 30.

Disbursements during December at $2,054,694 were 10.6% lower that $2,298,506, while repayments at $2,255,130 were 16.3% higher than $1,939,419.

In the first three months (ending Dec. 31) of the bank's fiscal year, disbursements at $6,807,976 were 5.5% lower than $7,201,832 in corresponding 1958 while repayments at $5,824,657 were 25.1% higher than $4,654,937.

Here is the comparative statement of assets and liabilities:

	1959 Dec. 31 $	Nov. 30 $
Assets		
Cash on hand and in bk.	917,098	25,388
Loans & investments	97,854,870	98,055,306
Prop. held for sale	130,238	130,534
Guar. & u/w agree.	59,380	56,489
Other assets	1,446,615	1,451,986
Total Assets	100,408,201	99,719,703
Liabilities		
Capital, paid-up	25,000,000	25,000,000
Reserve fund	12,808,968	12,808,968
Reserve held for losses	1,600,000	1,600,000
Bonds & debs. o/s	59,200,000	58,900,000
Liab. under guar. & u/w agree.	59,380	56,489
Other liabilities	1,739,853	1,354,246
Total liabilities	100,408,201	99,719,703

B. C. HYDRO

"B. C. Hydro" has been adopted as the official short form for the British Columbia Power Commission. The nickname was legally registered in the Trade Marks Journal at Ottawa.

ANNOUNCEMENT

SALES FINANCE ASSOCIATION APPOINTS FULL-TIME HEAD

E. MICHAEL HOWARTH

E. Michael Howarth, formerly Executive Secretary of The Canadian Institute of Chartered Accountants, has been appointed Executive Vice-President of the Federated Council of Sales Finance Companies, with headquarters in Toronto. Mr. Howarth is a graduate of Queen's University and Oxford, and was elected a Rhodes Scholar for Ontario in 1949. A native Montrealer, he was previously employed by the Sun Life Assurance Company and Charles E. Frosst Company in that city.

In announcing Mr. Howarth's appointment and the establishment of a permanent association office, President James R. Croft noted that the Council represents 29 of Canada's leading companies in the sales finance field. These companies hold approximately $800 million in retail instalment credit outstandings — about 70% of the Canadian total. Rapid growth of the Council's activities since its foundation in 1957 warrants the creation of a national office with full-time staff, said Mr. Croft. This step will further the Council's major aims of fostering public confidence in sales financing, and co-operating with all organizations in efforts to improve economic and social conditions.

Company Report

Financial

CROWN TRUST CO., Toronto, net profit of $321,271 for 1959 was 1.7% higher than 1958's $315,881.

Assets under administration were up $15,814,563 to $219,192,289.

Chairman and President J. A. McDougald reports that a very large proportion of the cost of converting the stock transfer department to I.B.M. equipment was provided out of 1959 revenue. Resulting increased efficiency should reduce future operating costs.

	1959	1958
Liabs. to public, etc.*	$34,491,868	$33,343,118
Sh'holders' equity	3,831,936	3,638,165
*Secured by:		
Mtges.	21,556,995	20,929,159
Office premises	450,000	450,000
Liquid assets4	16,316,609	15,802,124
Total	38,323,604	37,181,283
4Includes bonds and stocks.		
Estates account	180,863,685	166,196,443
Net profit	321,271	315,881
Earned per Share	$2.14	$2.11
Paid	0.85	0.75

Market Bid and Ask Quotations

Montreal & Toronto
Jan. 19, 1960

	Bid	Ask		Bid	Ask
xAbacus	34	35	xB-Duq	21	22
Abitibi	39½	40	Beatty	7¼	7¾
Do p	22¼	22¾	xBeav L	11¼	14
Ac-Atl	10½	11¼	B Lum	23¼	24
Ac-A A	18½	19	Do A	16½	16½
Do p	90	..	Do p	27	28
xAc Ur	10½	11	xBelch	66	70
xAcme	19	20	Bell	43¼	43¾
Admi	19¼	20	xBellet	27	34
xAdvoc	280	284	xBthlm	70	75
Ag-S	19¾	20¼	xBeven	16½	17
xAgnico	73	75	xBibis	12	13
xAjax	65	75	xBicrft	65	68
xAkaitc	40	42	xBidcop	11	12
xAlba	6½	7	Bilt	6½	8¼
xAlta D	265	275	Do p	13¼	13½
xDo vt	210	220	xBl Bay	16	17
xDo w	100	105	xBordul	6½	7¼
Alt Gas	26½	26½	xBouzn	61	63
xAP Con	40	50	Bow p	41¼	42
Algom	12¼	12¾	Do 5½ p	45¼	46
Alg C	19¼	19½	Bow-Mer p	44	45½
Do p	57	59	Bowat	9¾	9¾
Do w	560	585	Bowes	25	..
Algma	37¼	37¾	xBoymr	7¼	8
Alton	7¾	8	xBrirn	535	545
Do p	18¼	18¾	xBralsa	55	65
xAll R	30	34	Brazil	450	460
xAlmin	295	299	Do p	60	90
Alumi	31¼	31¾	Br T	22½	23½
Do 1 p	20¼	20¾	Do p	47	47½
Do 2 p	42¾	43	Bright	42	43½
xA-Lar	23	25	Do p	20	23½
xA Rare	8	9	xBritalt	232	245
xAm L	11	12	BA Oil	33¼	33½
xA Nep	60	65	BCE 4 p	69¾	..
xAmur	240	275	Do 4¼ p	36¼	37
xAnac	77	78	Do 4½ p	38	40½
Analog	7	7¼	Do 4¾ p	42¼	42½
xDo w	325	375	Do 5 p	43¼	44
xAnch	11	12	Do 5½ p	49	49½
Ang Am	735	780	BC For	13¾	13¾
Ang-Cdn	..	..	BC P A	13½	13¾
Tel	48¼	49¼	Do B	14¼	15
A ..p p	50¼	51	BC Pow	35¾	36
Ang Hu	12¼	13¾	BC Phone	42¼	42¾
xAng R	22	26	Brooke p	17	19
xAnsi	29	30	xBr Reef	45	48
Anthes	38	39½	Brown	11	11¾
Do B p	92	95	Bruck A	10¼	12
xArc w	4	5	xDo B	275	300
xArea	92	95	xBrnsk	380	400
Argus	31¼	31½	xBufad	10¼	12
Do 240 p	60¼	65	xBuf A	186	190
Do 250 p	42	43¼	xBuf RL	6¼	7¼
xArjon	8	9¼	Bld Prd	30½	32
xAsama	76	81	Bull A	5¼	6
Ash A	10	10½	Do B	5	5¼
Do B	13¼	13¾	xBunk H	8	9
xAsh T	7	7½	Burlton	16½	17¼
Do A	92	..	Burns	121	13
Do B	9	9	Burr A	6	6¼
xA Arc	55	56	xCable	12	15
Atl A	12¾	14	xCdmet	14	15
Do p	81	90	xCalalt	52	53
xAtl C C	200	205	Cal Ed	20½	21
Atlas	25¼	25¾	Cal Pow	19¾	19¾
xAt Yk	8	8¼	Do 5 p	94½	95
xAt-Ruf	11	13	xCalv C	350	360
xAumac	10	10½	xCalvert	49	50
xAumag	16	17	xC Chib	635	650
xAunor	275	290	C Red L	12¾	12¾
Aut El	25¼	26	**Canada**		
Aut F A	7	9¼			
xDo B	340	345	xC Bd	375	375
xBly SA	700	720	Do B	341	..
Do p	181¼	181¾	C Cem	31¼	31¾
Do 5½	182	194	Do p	261	264
xBanff	100	102	CCC St	15¾	16¼
xBnkno	19½	21½	C Foil	21	21
xBnkrd	8	9	Do A	21¾	25
Bk Mtl	54	54¼	C Fnd A	22	23
Bk NS	68¼	69	C Fnd B	8	14¼
Ba Cdiene	53¼	54	Cl Fnd	20	20¼
Barb-E	70	..	Do 4½	80	81¼
xBrclna	5	..	C Mach	11	15
xBarnat	149	150	C Malt	53	55¼
xBary E	53	55	Do p	24¼	25
xBase M	15	16½	xC O Lds	121	125
xBaska	11	12	xDo w	31¼	35
xBata	5¼	6	C P A	43	49¼
Ba In	5	8	Do B	44¼	45½
Bath A	40¼	41½	C Perm	55¼	56
Do B	26½	28	C Saf 4 p	83	87

DIVIDEND NOTICES

CANADIAN OIL COMPANIES, LIMITED

Notice is hereby given that a dividend of twenty cents (20c) per share has been declared on the Common shares without nominal or par value of the Company, payable February 15, 1960 to shareholders of record at the close of business January 19, 1960.

By Order of the Board.

DOUGLAS ROBINSON, Secretary.

Toronto, January 12, 1960.

NORTHWESTERN UTILITIES, LIMITED

DIVIDEND NOTICE

NOTICE IS HEREBY GIVEN that the Board of Directors of this Company has declared the fifty-fourth Quarterly Dividend of $1.00 per share, payable on Feb. 1, 1960, upon the outstanding 4% Cumulative Preference Shares of the Company, such dividend to be paid to the Shareholders of record at the close of business on Friday, Jan. 15, 1960.

DATED at Edmonton, Alberta, this 8th day of Jan. 1960.

C. L. METCALFE, Secretary.

CANADIAN UTILITIES LIMITED

DIVIDEND NOTICE

NOTICE is hereby given that a quarterly dividend of One Dollar and Twenty-five Cents ($1.25) per share on the 5% Cumulative Redeemable Preferred Shares of the par value of $100.00 each of the Company, and a quarterly dividend of One Dollar and Seven Cents ($1.07) per share on the Cumulative Redeemable Preferred Shares, 4¼% Series, of the par value of $100.00 each of the Company, will be paid on the 15th day of February, 1960, to all Shareholders of record at the close of business on the 29th day of January, 1960.

Dated at Edmonton, Alberta, this 11th day of January, 1960.

By Order of the Board.

T. A. MONTGOMERY, Secretary.

	Bid	Ask		Bid	Ask
xCSO w	70	75	Emco	12	12½
xCS Pet	450	460	Em Life	55	56
CSL	44	44½	En & Heat	9½	10¾
Do p	101	11½	Do B	5	5½
C Sup B	8½	9	Eq Life	53½	..
Canadian			Erie A	6	6½
xC Ast	7	8	xDo B	100	270
C Avia	15½	16½	xEurka	19½	23
C Baks	5	6½	xEx All	6½	7
C Bnk C	531	54½	Falcon	31¼	31½
C Br	352	361	Fam Pla	19½	19½
Do p	351	40	Fan F	16½	17
CB Al	13	14¼	xFrdy	83	85
xDo A w	650	675	xFargo	405	415
xDo B w	600	695	xFwest	12	13
C Can A	13½	13¾	xFatima	79	80
C Cel	19½	20¼	Fed Fire	36	..
Do 3½	16½	16½	Fed Gr	46½	48½
Do $175	29	29	xFibre	7	..
C Chem	116	117	xDo p	6½	..
xC Chref	116	117	Fitting	7¼	8¼
C Coll	7¾	8	Do A	9½	10
xDo p	73	77	xFleet	70	75
C Cvertrs	350	500	Ford US	80	81
Do B	450	..	Ford C	166	..
xC Curt	245	250	Found	11¾	12
xC Dev	345	350	xFrnc	5½	6½
C Drn S	17	18½	Fraser	27	27½
Do p	11¼	11½	Frel p	90	99
C Drdg	15½	15¾	xFr P p	550	575
xC Dyno	46	48	xFrbshr	200	202
xC E Gas	230	233	Do db	81½	83
C F p	125	..	Frosst	14½	15¼
Do A	101	101	Frue	6	6
Do B	74	74	xGaitwin	5½	6
xCF Pr	350	365	Gatin	..	35
Do A	8	8½	Do 5 p	97	98
Do p	51½	59½	Do 5½	102¼	..
CGE	780	1160	Geco	18	18½
CG S A	14¼	15	G Bak	8	8
Do B	16	18	G Dev	19	19¾
xC High	36	37	G Dyn	46½	47¾
xC Home	100	104	G Elec	86	86½
C Hsky	815	820	GMC	47¼	48¼
xDo w	440	445	xGP Dr	110	125
C Hyd C	11¼	11¾	xDo A	105	110
C I Ma	6	..	GP M A	31	32
Do A	17½	17¾	Do B	34	..
CIL	16¼	16½	GSW	15¾	16¼
Do p	76¼	..	Do p	86½	91
C Imp	89¼	..	xGenex	13	14½
C Ind	20¼	24	xGeo Sc	80	90
xC Inl	24¼	24¾	xGt Mas	17	20
xC NW	36	37	xGlenn	7	9
C Oil	24	24¾	xGoldale	18	19
Do p	138	142	xGF Ur	33	33½
Do 4	..	86	xGoldray	25	26½
Do 5	93	100	Gdy	73½	75
CPR	24¼	24¾	Do p	41	43
Pet p	12¾	12¾	G Mac A	6½	6½
C Salt	35	40	Do B	6½	6½
C Sup Oil	11¼	11¾	Gftn A	16½	..
xC Thor	6	8	xGranby	675	..
C Tire	191	192	Gr Toy	45	55
C Ut p	..	89½	xGrdroy	16	18
Do 4½	71	..	xGduc	134	135
C Vick	16¾	..	GL P	39¼	40
C Wal A	29	31½	GL Pow	24½	25
Do B	29½	30	Do p	17	21¼
CWN p	14	14½	Do w	710	850
Do 5½	19¼	19¾	GN G	5½	6
C West	44	44½	Do p	..	37½
xC Will	85	..	Do 280	39½	41
xCandor	14	14½	xDo w	200	225
xCan Er	116	118	xDo Bw	205	210
xC Met	20	21	Gr Pins	11¼	12½
xDo w	3¼	4½	GW C A	490	500
xCapt	8	8¼	Do B	350	365
xCarib	105	110	G Wpg G	10¼	10½
Cass	13	13¼	Do vt	10¼	10½
xCavzr	43	46	Do 56 w	480	490
xC Del	555	565	Do 58 w	555	575
xC Pat	130	135	Gr W	5	6½
xC Porc	12	13¼	xGrning	400	410
xChar O	122	125	xGrynk	3	4
Chart Tr	62¼	68	Greyhnd	11	11¼
xChesk	5	5¼	xGridoil	200	250
xChest	38	39	Guar T	26	26½
xChib J	51	52	xGulch	6	7
xChib-K	14	15	xGulf L	6½	7
xChi M	72	74	Gunn	104	104½
xChim	59	60	Do w	81	83
xChrm	310	335	Gurney	9¼	9½
xC Bar	410	..	Do p	24	25
xDo A	450	..	xGwilm	6½	8¼
xCoch W	287	289	Hahn	12¾	..
Co-D	18½	19¼	Do Rts	21	25
Do A	14½	16	Do 1 p	15	16½
Cohutt	22¼	23¼	Do 2 p	9½	..
xCody-R	10	11½	xHallnr	201	250
Coghlin	450	455¼	H Cot	16	17
xCoin L	13½	14	H Carp	14	14½
Coll	13	..	Hardee	11	11½
Do p	13	18	Do p	104½	107
xCol Cel	385	400	xRd Rck	10	12
Com E	11	11	xHar-M	10	11
xCo Met	35	37	Hartz	12	13
xCmoil	150	..	xHasaga	15	19
xCom P	265	350	xH of L	13½	14
Conduit	122	122	xHdway	27	29
Conf L	134½	150	xHeath	7	7¼
Do 6	160	166½	Hees	435	525
xConia	55	58	xHendsh	8½	8¾
xCniaur	48	50	Do p	60	78
xCKev	23	28	xHgh-B	147	155
xC All	6½	7	H D	53	54½
C Bak	8¼	9¼	Hi-T	7¼	8
xC Bell	7	7¼	xHold A	5½	6¾
xC B G	8¼	9	xDo B	300	350
xC Call	9½	11	Holling	27½	28
xC C C	4½	6	Holt Renf	17	17½
C Den	10¾	11	Ho O A	11¾	11¾
xDo w	20	23	Do B	11¼	11¾
xC Disc	360	365	Horne	425	450
xC Dra	40	41	H Smit	44½	..
xC E Cr	43	45	xHoyle	365	385
xC Fen	29	31	Hud B	51	51½
xC Fire	5	7	HB O G	12¼	13¾
xC Gill	7	8¼	xH-Pam	11	12½
xCG Ar	29	33	Hu O A	11½	13
xC Hall	66	67	Do B	..	14½
xC Hwy	290	310	Do p	25½	..
xC Mrbn	30	34	Hur Er	55½	60
xC Mrcs	59	67	xHydra	40	45
xC M M	265	275	Imp B	60	60½
C M S	19	19½	In Flo	36½	38½
xC Mogul	119	120	In Ala	8¼	8¾
xC Morr	23	24¼	Do Rts	33	35
xC Mos	99	100	I Inv P	19½	19½
xC Neg	20½	21¼	Do p	20¼	21
xC Nich	5	6½	Imp L	76½	77¾
xC Nor	35	42	Imp O	34¼	35
xC Pk	4	5	I Tob	11¼	11¾
xC Pers	11	12	Do p	5¼	7
xC Que	30	43	I Acc	35	35½
xC Red P	8	8¼	Do 450 p	80	84
xC Reg	10	11	Do 225 p	40	47
xC Sen	8½	9	Do 275 p	50	50½
xC Sud	42	42½	Do w	11¼	11½
Cons Text	240	300	Inger A	5¼	6
xC W P	345	350	xInglis	475	480
C Gas	37	37½	Ingr B	6	..
Do A	101	101½	Do p	11	12
Do B	102¼	103¼	Inl C p	20½	20¾
Cons Gl	27	28	In G	5¾	5¾
Con C	41½	41¾	Do p	14	14
xCnwst	405	410	xDo w	160	170
Cop Cl	7¼	7¾	xInspir	41	50
xC Cor	30	32	Int Bro	14¼	15
xCo-M	12	13	Do p	23	23¾
xCprnd	175	177	I Mill p	67½	72
Corb vt	18½	18¾	xI Moly	12	12¾
Bo B	17½	17¾	I Nickel	98	98¾
Csmos	12	13	I Pete	42¾	42¾
xCoulee	31½	33¾	Intprov	9¼	9¾
xCourn	9	11	I BC 55w	5	15
xCowic	65	66	Do 59w	125	135
xCraig	190	190	Int Pl	59½	59¾
xCrgmt	375	385	IP Sti	480	490
Crain RL	21½	22¼	Inv Syn	37½	45
xCree w	237	239	Do A	33¾	34
xCrst	10	12	xIrish	160	162
xCrsbk	150	155	xIrn B	260	275
Do p	16½	20	Iroq G p	14¼	14½
xDo w	..	25	xIso	46	48
xCroi	9	10	xJ Wal	48	49
Cr Cork	..	55	xJacobus	127	129
Cr Tr	26	30	Jaica Pub	33¾	34½
Cr Zell	..	48¼	Jaica P.S.	103	..
Cr Zellars	..	..	xJaye	25	26
(Cda)	19	19¾	Jeff	6¾	6¾
xCrowp	10	10½	xJellico	10	10½
Crow	16½	19	xJburk	12½	13
Crush	8¾	8¾	xJock C	225	230
xCusco	7	8	Do p	9	9¾
xDaer	16½	18	Do B p	8¼	8¾
Dlex p	..	86	xDo w	42	43
xD'Ara	31	32	Jon-M	44¼	44¾
xDe C	11¾	14	xJollet	28	29
xDeer H	24½	25	xJonsm	16	17
xD'Eid	12½	13	xJows	39½	40½
xDelte	47	53	xJump P	17	20
xDev P	89	92	xJupit	180	199
D Seag	30½	30¾	KEL D A	6¾	7
Dome	18½	19¼	xDo w	360	395
D Pete	855	880	Kelvin	9½	10
			xKenvil	7¼	8¼
Dominion			Ker Ad	20½	20¾
D Ang	535	..	xKil	365	370
D Brge	20¾	21	xDo w	175	180
D Coal p	425	500	xKirk M	38	39
Dom Corst	17	18½	xKirk T	9½	12
D Dair	9½	9¾	Labatt	27¼	27¾
Do p	24½	26	Labdor	24½	25½
D Elec	8¾	8¾	Lfge A	8¾	9¼
xDo w	475	525	xL Cin	65	75
D Fab	..	12	xL Duf	78	82
Do 2 p	20	20	xLklnd	265	270
D Fdry	49	49½	xL Ling	7¼	9
Do p	97½	98¾	xL Osu	16	18
D Ins	..	210	xL Shor	430	450
D Mag	6¾	7¼	xL Was	30	36
D Scot	33½	34	L Wds p	116	..
Do p	41¼	48	xLa L	410	425
Dosco	15	15½	xLamq	395	400
D Strs	51½	51¾	Lambl	32	33
D Tar	..	15¼	xLangis	89	90
Do p	18½	..	xLat Am	27	34
D Tex	9¼	9¾	L Sec	24	24¼
Do p	..	131	Laur A	12¼	14
xDonal	9	9¼	L J A	22	23
Donohue	15	16	Do B	22	..
Dover	13	13¼	xLeitch	137	140
Do p	9	9	xLenc	8	9
Dow	45	54	xLexndn	3¼	4
Du Fre A	7¼	7¾	Lewis Bro	10½	12¼
xDuvan	16	18	xLLL	182	187
xDuvex	7¼	8	LobGro	90	120
xDynam	140	142	Do 1 p	27½	29
xE Am	8¼	10	Do B p	26¾	27½
E Koot	8¼	10	Do 2 p	51¼	..
xE Mal	165	168	LobCo A	25½	26
xE Sul	180	183	Do B	25½	26
xEastwd	180	..	Do p	41	42
xDo A	180	185	Do A w	830	845
Easy p	16½	18	Loeb	7	7¼
Econ I	39	39	xL Hos	85	125
Eddy	65	66	xDo A	250	300
Do A	65	69	xLIP	15	16
Ed Mz	28	28¼	xL Point	50	54
xElder	138	140	xLorado	31	33
xEldr	22	23	xDo w	7	7¼
xElectr C	98	..	xLouvi	7	9
Electrolux	18½	19¼	Lr St Lawr	29¼	..
xEl Sol	9	9¼	Lown	24¼	30

Mutual Funds

	Divd. pd. cents	Bid	Ask.
All-Can. Com. Fd.	(30.563)	7.60	8.26
All-Can Div. Fd.	(32)	6.06	6.58
American Growth New	(18)	7.44	8.11
Assoc Investors	(33½)	8.09	8.17
Can. Invest. Fund	8(30)	8.81	9.67
Canafund	(125)	36.41	38.23
Champion Mut. Fund	(21)	5.39	5.93
C'wealth Inter.	10(29)	8.11	8.91
Corporate Inv.	142½)	8.81	9.63
Diversified Inc B	(10.8)	4.00	4.40
Dom. Equity	(5.2)	14.95	15.28
Dom Comp Fund	7.5+5(30)	9.69	10.08
Do nonres.	7.5+5(30)	9.64	10.03
Dominion Funds	7.5+5(30)	9.34	9.71
First Oil & Gas		4.16	4.48
Group Accum.		5.54	6.05
Grouped Inc.	(23.9)	3.81	4.16
Growth Oil & Gas		6.91	7.56
Invest. Growth	(10.5)	6.10	6.59
Investors Mutual	8.5(33)	11.12	12.02
Leverage Fund	(10)	6.62	7.27
Mut. Acc. F.	(18)	7.42	8.11
Mutual Bond		5.67	5.97
Mutual Income	(26.16)	4.97	5.43
North American	(120)	8.56	9.30
Regent Fund Ltd.	(9)	5.38	5.92
Sav & In Mut.	(19.5)	5.21	5.69
Sup'vised Amer.	(12)	7.00	7.07
Sup'vised Executive (1955)		37.11	...
Sup'vised Executive (1956)		30.38	...
Sup'vised Executive (1957)		5.21	...
Sup'vised Executive (1958)		5.56	5.83
Sup'vised Gr'th Fund	(3.5)	1.75	1.77
Sup'vised Inc. Fund	(1.7)	3.82	3.86
T.V. Electr'cs	(●95)	15.41	16.50
Timed Invest.	(19)	5.45	5.89
Trans-Can A	(95.2)	29.00	...
Do. B	(91)	29.60	...
Do. C	(18)	5.90	6.45
United Accum. Fund	(24)	14.37	15.83

●Paid or payable in 1960, total paid in 1959 in parentheses

▪Of which 62½ (U.S.) cap. gains dist. in 1959

‡Including initial

‖Final payt. in 1959 not available.

Commodities

	Latest week	Previous week	Same week last yr.
Cattle	$23.64	$25.33	$26.17
Hogs	22.69	22.65	24.50
Copper, lb.	.33	.33	.29
Coffee, lb.	.36	.36	.463
Sugar, raw, lb.	.0340	.0340	.0363
Hides	.22	.21½	.18

Weekly Commodity Indices

Dow Jones Fut.	147.98	148.73	145.71
U. S. Labor	119.1	118.9	119.4

Monthly Price Indices

	Latest month	Previous month	Same month last yr.
Retail C.P.I.*			
Canada (D.B.S.):			
(Dec.)	127.9	128.3	126.2
W'sale (Nov.)	230.3	230.1	228.8
C. P'w Pr.* (Nov.)	217.1	215.4	212.1
U. S. W'sale (Sept.)	119.6	119.1	119.1
Gr. Br. W'sale			
(Sept.)	111.4	▪111.3	111.1

Base of price quotations is as follows: Cattle-Steers, good up to 1,000 lb., to price Toronto. Copper-electrotypes, New York. Coffee No. 4 Santos Spot Raw. Sugar, 96 degrees centrifugal c.i.f.

*Base years 1947-49 = 100.
▲Base years 1924-26 = 100.
●Base year 1954 = 100.
▪Revised
†Not available.

Toronto Curb

Stock	Bid	Ask	Stock	Bid	Ask
Andian	6	6½	Gaspe	20½	24
A C	41½	41¾	Hayes	24	29½
Ang-N	6¾	7¼	I Pap	117	119½
Asbest	25¼	25¼	I Util	34‡	35
B A B	48	..	Lob I	123½	133½
xBulolo	435	450	M Lrn	75	82½
CD Sug	17¼	17¾	MO Pap	30	30½
C Vinq	32	34	Ogilv	45¾	..
C Brnze	22¼	22½	Do p	123	144‡
Do p	80	90	xPend O	295	300
CG Inv	33	33¾	Price	11¼	11¾
C Ing	37½	38¼	Sngmo	10	12½
C Marc	5¼	5¾	xSW P	140	..
C Pap	41¼	41¾	Th CG I	6¾	7¼
xDalh	19	22	xYuk C	67	69
de Hav	155	250	Zellrs	..	33
D Glass	88	90	(xToronto Gold)	33.20	33.50
Do p	14	..			
DOC	38½	39			
Du Pont	25	26	x—Quoted in cents.		
Do p	75	76			

Calgary Oils

Quoted in cents

Stock	Bid	Ask	Stock	Bid	Ask
Albedena	4½	5	Ldmr Dev	26	..
Ald-Leduc	6¼	8	Merit	56	58
Amalta O	2	3	Merland	13½	14½
Asamera	70	..	Mill Creek	10	13
Barons	3	3¼	Mollusca	10	..
Bashaw L	5	8	Monarch	11	12
Blue Cr	26	30	N Richfield	3‡	6
C Fortune	3½	4½	N Y Oil	8	9½
Carleton	40	..	N Cont'tal	1	1¼
Castle	16	17	Nuco Pet	7¼	8
Century	1½	2	Pamoil	40	..
Claybar U	11	12	R'chmen's	9	10
Command	60	..	Ranger	135	..
Com. Min.	15	16½	Renfrew	3	4
Dom. L's	125	130	R C Vent	14	..
Dom. Min.	2	2¼	Sage Oil	57	63
Dynamic	140	..	Sarcee	105	..
E Can Gas	2½	3	Sastex	2	2½
Edoran	4	5½	Share	4	4½
Gold Sat	3½	..	Sil. City	3	..
Gold Spike	4½	..	Siscalta	50	..
Ind Chem	..	90	Sturgeon	4½	6
Kenarc	3	..	Tr. Pete	2‡	3½
Keno Oils	26	27½	Tri-Zone	3	..
Leamac	5	6	Tur Valley	18	..
Led Cal	6½	7	W Warner	6	8

Canadian Stock Exchange

INDUSTRIAL

Stock	Bid	Ask	Stock	Bid	Ask
Abitca L	25	28	Bel'chasse	47½	50
Beld Cort	9	12	Belle-Chib	5	6
Do p	10¼	..	Bornite	7	8
Belgm St	7¼	..	Burnt Hill	11½	15
Do p	13	..	Calumet U	5	5½
Blue Bonnets			Canalask	5	6
R'way	..	8½	Canorama	50	53
C Arena	160	..	Canuba	4½	6
C I Inv	18‡	21	Carbec M	8	10
Do p	78‡	..	Cartier Q	18	20
Cdn P & P	6‡	7	Cen Man.	4	7
C Stln A	175	200	Chess Min.	7	10
Catelli A	..	39	Chipman	5	6½
Ci'zano A	135	..	C Cop Crp	17½	19
Con Div A	95	..	Che Min	240	249
Do p	32	..	Cominga	7	..
Cr RL n	..	22½	Con Bi-Ore	6½	10
D & Fr A	44	48½	C Monpas	8	10
Dalfen's	145	150	C Q Yell	6	8
Dom. Eng.	17	17½	Dolsan	8	9½
E Koot p	115	..	Duvan	16	22
Feralco I	..	100	Fab Met	10½	11
Freiman C	32‡	..	Fano	5	7
Horner A	25	26	Fatima	77	85
Hubb'd Fit	7½	..	Fontana	4	..
Do A	22	..	Fdy Bay	7¼	8
I. Paints A	9	10	Gold Age	34	38
Do p	18	20	Gui-Por U	8	12
I. Found	40	46	Haitian	6	6½
Do p	51	57½	H'crest C	24‡	27½
L'bert A	13	13½	Int. Cer	8‡	14
Do B	13	..	Iso Uran	45	52
Latonia I	22‡	23½	Kontiki L	6	8
Lochaber	150	..	Lingside	5	6½
Melchers	7½	9	Lithium	10	..
Do p	11‡	12½	Mid-Chib	26	28
Mtl. Ref'g	18	..	Mogador	8	11
Mtl. R Dry	8‡	3½	Monpre	22	24
Mt R Rice	20	22	N Formaq	17	18
Mussans	10	11	N Jack L	4½	7
Nfld L&P	51	54	N

THE WEEK'S QUOTATIONS

Quotations here listed are the official, exchange prices for listed stocks including curb market quotations. For unlisted stocks, quotations by unlisted dealers are given. The Financial Post cannot accept any responsibility for these quotations.

Montreal and Toronto Winnipeg, Calgary and Vancouver

Bid and Ask quotes of Toronto and Montreal exchanges up to press time are published on page 35

Industrial Stocks

WEEK ENDING JANUARY 15, 1960

Range 1959-60 High	Low	Div. Y'ld R'te Jan15 $	%	Company	Sales	Last Jan. 8	Week end. Jan. 15 High	Low	Close or Latest
1.00	26	..	..	Abitca Lumber..	32200	.30	.32	.30	.30
40¾	33	1.70	4.1	Abitibi	13604	39⅞	41¾	39	41
.24	21⅞	1.12½	5.1	Do. 4½% pref.	430	22¼	23	22¼	22¼
12	9	.60	5.5	Acadia Atlan. ..	910	10¾	11	11	11
98	90	5.00	5.4	Do. 5% pref...	nil	..	B90	A92½	93
22	18	1.20	6.7	Do. (A)	100	18	18½	18	18
17¾	(7¾)	..	..	Admiral	nil	..	B20⅜	A20½	17¾
21	12½	.70	3.4	Agnew Surp. ...	3065	19½	21	19½	20⅞
4.50	2.25	..	..	Alaska Y. Pipe..	nil	..	B2.00	A2.50	2.50
2.00	.70	..	..	Alaska Refin. ..	2000	.70	.75	.70	.75
13	5	..	..	Do. pref.	nil	..	B5	A6½	7
4.60	2.35	..	..	Albt. Dist. ...	6210	2.75	2.75	2.65	2.65
2.80	2.00	..	..	Do. V.T.	5301	2.20	2.16	2.10	2.10
1.85	1.00	..	..	Do. S. Pur. W.	3850	1.10	1.10	1.00	1.05
.30	21⅜	..	..	Albt. Gas Tr. ...	10810	27⅞	28	26⅞	26¾
23½	16½	⅛4.25	..	Algoma Cent. ..	3956	19	19½	19	19½
72	58	3.00	5.1	Do. 6% pref...	65	60	59¼	59¼	59¼
10.75	3.10	..	..	Do. Warr.	27	5.75	6.00	5.90	6.00
42¼	34½	1.00	2.6	Algoma Steel	10940	39¾	39¾	37½	38¾
9	7½	.25	..	Algonquin	300	7¾	7⅞	7½	7½
20	19	1.30	7.3	Do. pref.	nil	..	B18½	A18½	17¾
37⅜	28½	.50	..	Aluminium	19962	32⅞	33	32	32½
22	19¼	1.00	5.0	Alum of Can 1 p	450	20	21	20½	20½
45⅞	41⅛	2.25	5.3	Do. 2nd pref..	1965	42¾	43¼	42½	42⅝
12.50	5.30	..	..	Analogue	1595	8.00	8.00	7.00	7.50
7.00	2.50	..	..	Do. Warr.	200	3.75	3.50	3.45	3.45
7	5	⅛.35	..	Andian Nat.	60	5½	6	5¾	5¾
25	22½	.50	2.1	Anglo Can. Oils..	nil	..	B24¼	..	24¼
				(Brandon)					
46	37½	2.00	4.8	Ang. Cdn. Pulp	465	42	41½	40¾	41½
53	48	2.80	5.6	Do. pref.	210	49	50	49	50
43	39½	2.25	5.9	Ang. Can. Tel. p	10	40	⅛38¼	⅛38¼	⅛38¼
49¼	48	2.90	6.0	Do. $2.90 pref..	110	48½	48½	48½	48½
8½	6½	.20	2.8	Ang. Nfld.	1760	7½	7½	7	7¼
..	..	††4.20	..	Ang.-Scand. Inv.	nil	..	..	..	..
45	32½	1.40	3.6	Anthes Imp. ...	35	37	37½	37¼	37¼
100	95	5.50	4.7	Do. 5½% pref.	nil	..	B92	A95	96
42¼	31	1.00	3.1	Argus	3224	35	34¼	31¾	31¾
93	64½	2.40	3.7	Do. A pref. ...	25	68	64½	64½	64½
48⅜	43¾	2.50	5.7	Do. B pref. ...	220	⅛51¼	43¾	43⅜	43½
..	..	▲1.00+5▪	..	Aro Equip.	nil	..	..	..	..
36½	25	1.20+.20	..	Asbestos	3302	25¾	25⅞	25	25
9.00	4.85	▪.20	..	Ash Temple	100	8.50	7.50	7.50	7.50
196	196	6.00	6.7	Do. A	nil	..	B92	..	⅛90
9⅝	8¼	.65	7.6	Do. (B)	nil	..	B9	A9	8½
10	10	.60	6.0	Ashdown Hd. A	nil	..	B10	A10⅞	10
16½	13¼	.72	5.5	Do. (B)	55	⅛13¼	⅛13¼	⅛13¼	⅛13¼
..	..	▲4.00+‡▲2.00	..	Assoc. T&T pf..	nil	..	..	..	101
14½	5⅞	..	..	Atlan. Accept...	15	14	14	14	14
19½	15	1.10	6.1	Do. pref.	25	⅛19	18	18	18
29⅝	24	1.00+▪.25	..	Atlas Steels	2330	27	27	25	25⅝
34½	18¾	‡1.10+.15	..	Auto Electric ...	300	26¼	26½	26	26
10.00	6.00	▪.15+‡▲.15	..	Auto Fabrics A ..	nil	..	B7	A9½	7¼
4.50	2.25	..	..	Do. (B)	nil	..	B3.40	A3.50	3.40

B

63⅜	51	1.60+2.35		Bk. Can. Nat.	1160	55¾	55	54⅜	54⅜
62¾	50½	1.60+2.25		Bk. Montreal	6828	54¾	54¾	54	54
64½	65¾	2.20+3.10		Bk. N. Scotia	2343	69¾	69⅞	67⅝	68⅝
43	33	1.00+1.25		Bk. Provincial .	1043	40½	41	⅛39½	40½
..	..	3.20+‡2.40		Barber-Ellis	nil	..	B70	..	..
..	..	3.50		Do. Pfd.	nil	..	..	..	..
4.85	3.00	..	..	Barcelona	nil	..	B5¼	A8	⅛5¼
6¾	6¾	..	..	Bates & Innes A	nil	..	B5	A8	⅛5¼
52	40½	2.00	4.8	Bathurst Pr. A ..	45	42	42	41½	41¾
36	26	..	..	Do. (B)	390	27½	27	27	27
13.37½	6.37½	.40+1.10		Beatty Bros.	1250	7.75	7.62½	7.25	7.50
30	23	1.00+2.25		Beaver Lumber .	1365	24½	24½	24	24
18½	16	1.00	6.1	Do. (A)	1450	16½	16¾	16	16
28	25½	1.40	5.4	Do. Pref.	nil	..	B27	..	A26
13½	10⅝	▪	..	Belding Cort.	164	19	10¼	10¼	10¼
21½	11	.70	5.8	Do. pref.	nil	..	B10¼	..	12
8	7	1.	..	Belgium Stores ..	nil	..	B7½	A10	7
13	13	1.00	7.4	Do. Pref.	nil	..	B13⅛	..	⅛13½
44⅛	39¾	2.20	5.1	Bell Telephone .	24247	43	43⅛	42⅝	43⅛
8	7½	.40	5.7	Biltmore Hats ..	nil	..	B6½	A8½	17
14	12¾	1.00	7.4	Do. A Pref.	nil	..	B13½	A13¾	13½
55	47	2.40+.40	..	Bird Constr.	nil	..	B52	..	55
11¾	8¾	⅛1.20	..	Blue Bonnets	nil	..	B7¾	A8¼	8½
2.75	2.50	..	..	Do. Warr.	nil	..	..	A1.50	⅛2.00
49½	44	2.75	6.0	Bowater Mer. P.	830	45	47	45½	45½
10.87½	6.00	⅛.364	..	Bowater Pap. ...	7510	9.87½	9.87½	9.62½	9.75
47	39¾	2.50	6.0	Bowater N.A. 5% pf.	535	▪42¼	42¾	41½	41½
50½	43	2.75	6.1	Do. 3½% Pref.	190	46	45⅞	45	45
30	25	1.00+1.50	..	Bowes Bldg.	nil	..	B25	..	28
9½	6	.60	8.3	Boyles A	125	6¾	7¼	6¾	7¼
..	..	..	..	Do. (B)	nil	..	B4.00	A5.00	4.10
9	6	..	..	Brazilian Tr.	19704	4.60	4.75	4.55	4.70
..	..	1.00	4.8	Do. Pref.	nil	..	B60	A68	⅛65
90	90	6.00	6.1	Bridge & Tank ..	1680	22½	22⅞	22½	22⅝
23	19	1.20	5.0	Bridge & Tunnel	50	47½	47½	47⅛	47½
48	44	2.90	6.1	Do. 5% Pfd.	nil	..	B20	A23½	20¼
50	37¾	1.00	2.2	Bright T. G.	nil	..	B42	A45½	45½
30	25	1.15	5.7	Do. 5% Pfd.	nil	..	B20	A23½	20¼
53	42	‡1.70+1.80		Br. Am. Bk. Notes	nil	..	B49	A57	53
44½	31½	1.00	2.9	Brit. Amer. Oil .	34310	34⅝	34¾	34	34½
78	68¼	4.00	5.7	B.C. Elec. 4% Pf.	290	70	70	69¼	37
41½	35¾	2.12½	5.7	Do. 4¼% Pref.	155	36½	37	36½	37
43	37¾	2.25	5.8	Do. 4½% Pref.	295	40	40½	37⅞	39
91	81	4.75	5.8	Do. 4¾% Pfd. ..	112	81½	82⅞	81⅞	81⅞
49	42½	2.50	5.7	Do. 5% Pfd.	1275	43¾	44¼	43¼	43¾
52½	47	2.75	5.6	Do. 5½% Pfd. ..	330	49	49¾	49	49¼
18	11½	▪.12½	..	B.C. Forest	460	13¾	14¼	14¼	14¼
18	13	.75	5.2	B.C. Packers A ..	702	15	14½	14½	14½
18	13½	1.00	6.9	Do. (B)	50	14½	14¼	14¼	14¼
40¼	33¼	1.40	3.9	B.C. Power	5141	37	37¼	36¼	36¼
49	39¾	2.00	4.7	B.C. Tele.	1879	43¼	43	42¼	42¼
1.25	.90	..	..	B.C. Turf	200	1.10	1.10	1.10	1.10
18	17	1.04	6.1	Brooke Bond Pf.	nil	..	B17	A19	17
14⅞	9¼	▲.30+▪	..	Brown Co.	1630	11	11¾	11	11½
13½	8¼	.30	..	Bruck S. Mills A	nil	..	..	..	10½
5.00	2.20	..	..	Do. (B)	325	2.65	2.70	2.60	2.70
39	28¾	1.80	5.9	Build Prod.	3250	31	31⅛	30	30½
7	5⅛	.50	8.3	Bulloch's A	20	6	6	6	6
5¾	5	.35	7.0	Do. (B)	10	5	5	5	5
24	16¾	.60+‡.25		Burlington St'l. .	370	17¾	17¾	17½	17¾
14¾	11¼	.80	6.2	Burns & Co.	986	13¼	13¼	12	13
8	6	.45	7.2	Burrard B. D. A	600	6¼	6¼	6¼	6¼
9	9	▪.15	..	Burrard Mtg.	30	19¾	19¾	19¾	19¾
9½	2¾	..	..	Do. Warr.	nil	..	B2½	A3½	3
2.75	1.75	..	..	Butterfly Hos. ..	nil	..	B2.50	..	2.50

C

26	26	1.50	6.0	Caldwell Lin. 1st pf	nil	..	..	..	125
20	18	▪††1.10	..	Calgary Pwr.	20485	19½	19⅝	19	19½
103	99½	5.00	5.3	Do. 5% Pref. ..	25	100	195	195	195
		Canada							
5.50	3.70	.10	2.4	Canada Bread	nil	..	B3.75	A4.15	4.25
58	55	2.50	4.6	Do. Pref. B	20	55½	⅛54¾	⅛54¾	⅛54¾
37	26⅞	1.00	3.1	Canada Cement ..	6313	33	33¼	31	32
28½	25	1.30	5.0	Do. Pref.	611	26⅛	26½	25½	26
23¼	12½	.60	3.7	Can. Cr & C. Stone	40	17½	⅛16⅜	⅛16⅜	⅛16⅜
27⅛	16⅜	▪.25	..	C. & D. Sugar ..	2448	17¼	17¼	16¾	17
15½	14½	1.00	6.7	Can. Floor B	nil	..	..	A15	15
24½	20	.60+.20	..	Can. Foils	100	22	..	21	21
25	21	.60+.53	..	Do. (A)	nil	..	B21¼	A25	21½
12	..	..	..	Can. Forg.	nil	..	B8	A14½	12
30	25¼	1.50	6.8	Do. (A)	25	⅛22	⅛22	⅛22	26
30	37¾	1.50	7.4	Can. Iron	3575	20¼	20½	20	20¼
101	80	4.25	5.2	Do. 4¼% Pref.	165	82	83	82	82
218	205	4.60	2.1	Can. Life	nil	..	..	..	218
15	15	▪.50	..	Can. Machine	nil	..	B11	A15	15
76⅛	54	2.00	3.6	Can. Malting	326	56½	57	55	55
6	2¼	⅛1.17	4.7	Do. 4½% Pfd. ..	325	24½	24¾	24½	24¾
57	45½	⅛11.75	..	Can. Packers A ..	560	45½	46¾	45½	46½
55	44½	⅛11.75	..	Do. (B)	520	45¼	45¾	45	45¾
70	55	2.00	3.6	Can. Perm. Mtg.	426	57	56	55⅜	56
91	80	4.40	5.3	Can. Safeway Pref.	130	84	84	⅛82½	⅛82½
49¼	39¼	1.40	3.6	Can. Steamships .	2030	44	45½	45½	44
13	10¾	.62½	5.7	Do. Pref.	600	10¾	11	11	11
38½	28	1.20+1.20	..	Can. Vinegars	125	32	32	32	32
8	8	..	..	Can. West Cord A	nil	..	..	..	8
..	..	..	..	Do. (B)	nil	..	..	..	..
115	100	4.00	4.0	Can. W. Cable A	nil	..	..	..	⅛100
15½	7½	1.50	..	Do. (B)	150	9½	9	9	9
		Canadian							
155	155	⅛4.00	..	Canadian Arena .	nil	..	B160	..	155
19½	16	..	..	Cdn. Aviation	nil	16	..	16	16
8½	6	.25	..	Cdn. Bakeries ..	nil	..	B5	A6½	15¾
58	52	1.60+▪.25	..	Cdn. Bk. Com. ..	5023	54½	55	54	54¾
42⅜	33⅛	.40	..	Cdn. Breweries .	4353	36¼	36½	34¾	36¼
42½	34	1.25	3.5	Do. Pfd.	75	36	35⅜	35⅜	35⅜
17⅜	11	..	..	Cdn. Br. Al. A .	663	15¼	15½	14¾	14⅞
10.00	4.10	..	..	Do. Warr. A ..	1085	6.50	6.65	6.35	6.50
8.70	3.45	..	..	Do. Warr. B ..	275	6.35	6.50	6.40	6.50
25	20	1.50	6.9	Cdn. Bronze	100	23	21¾	21¾	21¾
90	90	5.00	6.3	Do. Pref.	nil	..	B83	A90	⅛80
16⅜	13⅛	.75	5.5	Cdn. Canners A .	530	13¾	13⅞	13¾	13¾
24⅜	18	1.85+.15	..	Cdn. Celanese ..	4321	21¾	21	20	20
33	27	1.75	6.0	Do. $1.75 Pref. .	nil	..	B29¼	A29½	29
21	15½	1.00	6.0	Do. $1.00 Pref. .	100	16½	16¾	16¾	16¾
10	6¼	..	..	Cdn. Chem. Ltd. .	3375	6⅝	7¼	6½	7¼
9.50	4.55	..	..	Cdn. Collieries ..	8790	7.87½	7.75	7.50	7.62½
.85	.68	.05	0.7	Do. Pref.	6650	.73	.79	.73	.76
4.50	3.00	..	..	Cdn. Convert A .	nil	..	B3.50	A5.00	3.50
5	4½	..	..	Do. (B)	nil	..	B4½	..	5
4.10	2.00	..	..	Cdn. Curtiss W. .	5835	2.70	2.75	2.40	2.40
18	12	1.65	..	Cdn. Drawn Stl. .	970	15	18	⅛16½	17½
13	10¾	.60+1.10	..	Do. Pref.	355	11¾	11¾	11⅜	11½
22	15	††1.50	..	Cdn. Dredge	962	15	15¾	15	15¾
11½	10½	..	..	Cdn. Fairb. A ..	1275	10⅝	10⅝	⅛10	10½
8¾	7	..	..	Do. (B)	1437	7	7¾	7	7¾
123	105	..	..	Do. Pref.	25	..	B125	..	125
5.00	2.50	..	..	Cdn. Food Prod. .	200	3.40	3.80	3.80	3.80
39	28¾	1.80	5.9	Build Prod.	3250	31	31⅛	30	30½
7	5⅛	.50	8.3	Bulloch's A	20	6	6	6	6
5¾	5	.35	7.0	Do. (B)	10	5	5	5	5
24	16¾	.60+1.25		Burlington St'l. .	370	17¾	17¾	17½	17¾
14¾	11¼	.80	6.2	Burns & Co.	986	13¼	13½	12	13
8	6	.45	7.2	Burrard B. D. A	600	6¼	6¼	6¼	6¼
9	9	▪.15	..	Burrard Mtg.	30	19¾	19¾	19¾	19¾
9½	2¾	..	..	Do. Warr.	nil	..	B2½	A3½	3
2.75	1.75	..	..	Butterfly Hos. ..	nil	..	B2.50	..	2.50

C

26	26	1.50	6.0	Caldwell Lin. 1st pf	nil	..	..	..	125
20	18	▪††1.10	..	Calgary Pwr.	20485	19½	19⅝	19	19½
103	99½	5.00	5.3	Do. 5% Pref. ..	25	100	195	195	195
		Canada							
5.50	3.70	.10	2.4	Canada Bread	nil	..	B3.75	A4.15	4.25
58	55	2.50	4.6	Do. Pref. B	20	55½	⅛54¾	⅛54¾	⅛54¾
37	26⅞	1.00	3.1	Canada Cement ..	6313	33	33¼	31	32
28½	25	1.30	5.0	Do. Pref.	611	26⅛	26½	25½	26
23¼	12½	.60	3.7	Can. Cr & C. Stone	40	17½	⅛16⅜	⅛16⅜	⅛16⅜
27⅛	16⅜	▪.25	..	C. & D. Sugar ..	2448	17¼	17¼	16¾	17
15½	14½	1.00	6.7	Can. Floor B	nil	..	..	A15	15
24½	20	.60+.20	..	Can. Foils	100	22	..	21	21
25	21	.60+.53	..	Do. (A)	nil	..	B21¼	A25	21½
12	..	..	..	Can. Forg.	nil	..	B8	A14½	12
30	25¼	1.50	6.8	Do. (A)	25	⅛22	⅛22	⅛22	26
30	37¾	1.50	7.4	Can. Iron	3575	20¼	20½	20	20¼
101	80	4.25	5.2	Do. 4¼% Pref.	165	82	83	82	82
218	205	4.60	2.1	Can. Life	nil	..	..	..	218
15	15	▪.50	..	Can. Machine	nil	..	B11	A15	15
76⅛	54	2.00	3.6	Can. Malting	326	56½	57	55	55
6	2¼	⅛1.17	4.7	Do. 4½% Pfd. ..	325	24½	24¾	24½	24¾
57	45½	⅛11.75	..	Can. Packers A ..	560	45½	46¾	45½	46½
55	44½	⅛11.75	..	Do. (B)	520	45¼	45¾	45	45¾
70	55	2.00	3.6	Can. Perm. Mtg.	426	57	56	55⅜	56
91	80	4.40	5.3	Can. Safeway Pref.	130	84	84	⅛82½	⅛82½
49¼	39¼	1.40	3.6	Can. Steamships .	2030	44	45½	45½	44
13	10¾	.62½	5.7	Do. Pref.	600	10¾	11	11	11
38½	28	1.20+1.20	..	Can. Vinegars	125	32	32	32	32
8	8	..	..	Can. West Cord A	nil	..	..	..	8
..	..	..	..	Do. (B)	nil	..	..	..	..
115	100	4.00	4.0	Can. W. Cable A	nil	..	..	..	⅛100
15½	7½	1.50	..	Do. (B)	150	9½	9	9	9
		Canadian							
155	155	⅛4.00	..	Canadian Arena .	nil	..	B160	..	155
19½	16	..	..	Cdn. Aviation	nil	16	..	16	16
8½	6	.25	..	Cdn. Bakeries ..	nil	..	B5	A6½	15¾
58	52	1.60+▪.25	..	Cdn. Bk. Com. ..	5023	54½	55	54	54¾
42⅜	33⅛	.40	..	Cdn. Breweries .	4353	36¼	36½	34¾	36¼
42½	34	1.25	3.5	Do. Pfd.	75	36	35⅜	35⅜	35⅜
17⅜	11	..	..	Cdn. Br. Al. A .	663	15¼	15½	14¾	14⅞
10.00	4.10	..	..	Do. Warr. A ..	1085	6.50	6.65	6.35	6.50
8.70	3.45	..	..	Do. Warr. B ..	275	6.35	6.50	6.40	6.50
25	20	1.50	6.9	Cdn. Bronze	100	23	21¾	21¾	21¾
90	90	5.00	6.3	Do. Pref.	nil	..	B83	A90	⅛80
16⅜	13⅛	.75	5.5	Cdn. Canners A .	530	13¾	13⅞	13¾	13¾
24⅜	18	1.85+.15	..	Cdn. Celanese ..	4321	21¾	21	20	20
33	27	1.75	6.0	Do. $1.75 Pref. .	nil	..	B29¼	A29½	29
21	15½	1.00	6.0	Do. $1.00 Pref. .	100	16½	16¾	16¾	16¾
10	6¼	..	..	Cdn. Chem. Ltd. .	3375	6⅝	7¼	6½	7¼
9.50	4.55	..	..	Cdn. Collieries ..	8790	7.87½	7.75	7.50	7.62½
.85	.68	.05	0.7	Do. Pref.	6650	.73	.79	.73	.76
4.50	3.00	..	..	Cdn. Convert A .	nil	..	B3.50	A5.00	3.50
5	4½	..	..	Do. (B)	nil	..	B4½	..	5
4.10	2.00	..	..	Cdn. Curtiss W. .	5835	2.70	2.75	2.40	2.40
18	12	1.65	..	Cdn. Drawn Stl. .	970	15	18	⅛16½	17½
13	10¾	.60+1.10	..	Do. Pref.	355	11¾	11¾	11⅜	11½
22	15	††1.50	..	Cdn. Dredge	962	15	15¾	15	15¾
11½	10½	..	..	Cdn. Fairb. A ..	1275	10⅝	10⅝	⅛10	10½
8¾	7	..	..	Do. (B)	1437	7	7¾	7	7¾
123	105	..	..	Do. Pref.	25	..	B125	..	125
5.00	2.50	..	..	Cdn. Food Prod. .	200	3.40	3.80	3.80	3.80
39	28¾	1.80	5.9	Build Prod.	3250	31	31⅛	30	30½
7	5¼	.50	8.3	Bulloch's A	20	6	6	6	6
5¾	5	.35	7.0	Do. (B)	10	5	5	5	5
24	16¾	.60+1.25		Burlington St'l. .	370	17¾	17¾	17½	17¾
14¾	11¼	.80	6.2	Burns & Co.	986	13¼	13½	12	13
8	6	.45	7.2	Burrard B. D. A	600	6¼	6¼	6¼	6¼
9	9	▪.15	..	Burrard Mtg.	30	19¾	19¾	19¾	19¾
9½	2¾	..	..	Do. Warr.	nil	..	B2½	A3½	3
2.75	1.75	..	..	Butterfly Hos. ..	nil	..	B2.50	..	2.50

C

26	26	1.50	6.0	Caldwell Lin. 1st pf	nil	..	..	..	125
20	18	▪††1.10	..	Calgary Pwr.	20485	19½	19⅝	19	19½
103	99½	5.00	5.3	Do. 5% Pref. ..	25	100	195	195	195
		Canada							
5.50	3.70	.10	2.4	Canada Bread	nil	..	B3.75	A4.15	4.25
58	55	2.50	4.6	Do. Pref. B	20	55½	⅛54¾	⅛54¾	⅛54¾
37	26⅞	1.00	3.1	Canada Cement ..	6313	33	33¼	31	32
28½	25	1.30	5.0	Do. Pref.	611	26⅛	26½	25½	26
23¼	12½	.60	3.7	Can. Cr & C. Stone	40	17½	⅛16⅜	⅛16⅜	⅛16⅜
27⅛	16⅜	▪.25	..	C. & D. Sugar ..	2448	17¼	17¼	16¾	17
15½	14½	1.00	6.7	Can. Floor B	nil	..	..	A15	15
24½	20	.60+.20	..	Can. Foils	100	22	..	21	21
25	21	.60+.53	..	Do. (A)	nil	..	B21¼	A25	21½
12	..	..	..	Can. Forg.	nil	..	B8	A14½	12
30	25¼	1.50	6.8	Do. (A)	25	⅛22	⅛22	⅛22	26
30	37¾	1.50	7.4	Can. Iron	3575	20¼	20½	20	20¼
101	80	4.25	5.2	Do. 4¼% Pref.	165	82	83	82	82
218	205	4.60	2.1	Can. Life	nil	..	..	..	218

Mining Stocks

WEEK ENDED JANUARY 15, 1960

Range 1960 High	Low	Company & Dividend ($)	▲Sales	Last Jan. 8	Week Ending Jan. 16 High	Low	Close or latest
.45	.22	Abacus	83116	.29	.31	.26	.31
.15½	.06½	Acadia Ur.	17000	.09	.10½	.09	.10½
.10	.04	Ad Astra	nil	..	B.04	A.06	.05½
2.30	2.40	Advocate	27050	3.00	3.00	2.85	2.90
.42	.13	Agassiz	nil	..	B.11	..	.17
.75	.50	Agnico *.06	45514	.72	.75	.69	.75
.52	.36	Akaitcho	2500	.42	.40	.39	.40
.15	.05	Alba	7500	.06½	.07	.06	.07
17.00	10.06	Algom ▲▲2.50	9985	13.25	13.25	12.37½	12.62½
.40	.09	Alscope	47725	.19	.18½	.16	.18
.45	.19	Amal. Lard.	3500	.26	.25	.23	.25
.18	.06	Amal. R.M.	12000	.09	.09½	.07½	.09
.06	.03½	Amer'm	nil	..	B.03½	A.04	.03½
.91	.56	Am Neph	8025	.56	.62	.57	.62
.10	.06	Amer. Stand.	3200	.08	.08	.08	.08
1.18	.52	Anacon	478775	.70	.90	.70	.81
14.00	10.62½	Anglo-Hur. 50	3687	12.50	13.12½	12.50	12.50
.45	.18½	Anglo-Rou.	8200	.25	.24	.22	.23
.52	.13	Ansil	193015	.25	.30	.23½	.28½
.15	.05	Anthonian	15000	.05	.08	.05	.08
.10	.02	Arcadia warr.	7400	.07	.07	.03½	.06
1.50	.75	Area	22050	.99	1.02	.91	.99
.19	.07	Arjon	1000	.09½	.08	.08	.08
.10	.04	Arno	26100	.07	.07½	.05½	.07
.62	.45	Assoc. Ar'dia	53935	.58	.59	.51	.55
2.70	1.45	At. Coast Cop.	6305	2.00	2.10	1.90	2.00
.15	.04	Atlas Sulp.	34667	.06	.12	.06	.10
.15	.06½	Atlas Y'fe	4000	.07½	.06½	.07½	.08½
.23	.10	Atlin-Ruff	12300	.13	.13½	.12	.13
.85	.25	Augustus	6233	.35	.35	.32	.35
.21	.05	Aull	22500	.06	.08	.06	.07½
.21½	.08	Aumacho	10500	.09	.11	.08	.10
.16	.05	Aumaque	198000	.07	.11	.07	.11
3.15	2.50	Aunor .16	800	2.95	2.90	2.76	2.80

B

.33	.11	Baker Talc	1200	.15	.18	.15	.15
.08	.04	Band Ore	1000	.04½	.04½	.04½	.04½
.26	.16	Bankeno	11720	.21	.20	.19½	.20
.10	.08	Bankfield	1500	.08½	.08	.08	.08
1.94	1.24	Barnat	20230	1.55	1.56	1.45	1.50
.10	.04	Barvallee	1000	.05	.04½	.04½	.04½
.72	.53	Barymin $.03	700	.53	.55	.55	.55
.26	.10	Base Metals	16800	.16½	.17	.15	.15
.25	.10	Baska	19000	.11½	.12½	.11	.12
1.30	.20	Bateman	41060	.42	.47	.40	.41
.10	.02½	Beatrice	2500	.03½	.05	.04	.04
.23	.16	B'tie-Dug	19000	.23	.23	.21	.23
.85	.43	Beauce Placer	nil	..	B.40	..	.45
.25½	.05½	Beaver L'ge	32900	.12	.15	.12	.14
1.32	.61	Belcher	7725	.72	.71	.65	.68
.84	.41	Bellechasse	62700	.50	.53	.46	.53
.13	.04½	Belle-Chib.	4000	.05½	.06	.06	.06
2.41	.12	Belleterre	1100	.19	.26	.24	.26
2.05	.57	Bethle'm	31150	.80	.83	.75	.80
.28	.13	Bevcon	4000	.17½	.17	.16	.17
.27½	.07	Bibis-Yuk.	202700	.10½	.15½	.09	.14½
1.08	.51	Bicroft	2513	.63	.63	.63	.63
.24	.09½	Bidcop	10800	12	.13½	.12	.12
.30	.08	Black Bay	18300	.06	.18	.17	.17
.10	.05	Bordulac	5500	.06	.06½	.06	.06
.15	.05	Bornite	1500	.05	.08	.07½	.08
.79	.45	Bouzan	91400	.64	.65	.61	.64
.15½	.07	Boymtr	11000	.07	.08	.07	.07½
8.53	4.90	Bralorne-P. 40	2415	5.50	5.50	5.35	5.35
.60	.41	Broulan	12500	.47	.47	.43	.45
4.45	2.25	Brunswick	23653	3.25	4.45	3.30	4.10
.39	.08	Buffadison	54900	.10	.12½	.10	.12½
2.55	1.30	Buffalo Ank.	9200	1.91	1.95	1.86	1.95
.09	.05½	Buff. R.L.	nil	..	B.06½	A.07½	.07½
4.35	3.30	Bulolo $.45	2407	4.20	4.25	4.10	4.20
.11	.06½	Bunker Hill	600	.07	.11	.07½	.07½
.42	.08	Burnt Hill	3150	.13	.15	.11	.15
.40	.06½	Burrex	nil	..	B.09	A.15	.06¼

C

.28½	.10	Cable	4000	.13	.15	.14	.14
.46	.11	Cadamet	7375	.16	.15	.14	.14
.07	.02½	Calumet	3000	.03	.04½	.04½	.04½
10.50	5.70	Camp. Chib. Campbell R.L.	15495	6.60	6.90	6.30	6.70
13.25	10.00	.35+*.05 Canadian	1050	13.12½	13.25	12.62½	12.87½
.13	.06	Cdn. Ast.	1666	.07	.07	.07	.07
.75	.20	Cdn. Dyno	13840	.54	.57	.45	.48
.84	.30	Cdn. Mal.	5200	.45	.47	.44	.46
.40	.15	Cdn. N Inca	32696	.25	.26	.24	.24
1.12	.29	Cdn. N'west	10367	.42	.42	.38	.39
.09	.05	Cdn. Thor	1000	.05	.05½	.05½	.05½
.10	.03½	Canalask	5740	.06	.07	.03½	.07
.20	.10½	Canam	3800	.13	.13	.12	.12
.28	.10½	Candore	6500	.12	.13	.12	.12½
2.43	.35	Can-Erin	422151	1.17	1.31	1.15	1.27
1.07	.14	Can-Met	68080	.22	.23	.17	.17
.55	.02½	Do. warr.	5100	.05	.06	.04	.04
.51	.13	Canorama	50480	.46	.51	.46	.51
.14	.03	Canuba	900	.04	.04	.04	.04
.07	.04½	Canusa	9000	.06	.06	.05	.06
.15	.06	Captain	12000	.08	.09	.07½	.09
.23	.07	Carbec	nil	..	B.07	A.08	.12
1.77	.78	Cariboo	4550	1.13	1.15	1.08	1.10
.65	.14	Cartier Q. Cassiar Asb.	12200	.22	.23	↑.17	↑.17
13.00	9.40	40+*.05	6885	13.00	13.00	12.50	13.00
3.10	.35	Cayzor	10700	.45	.42	.41	.42
.10	.03	Cen. Man.	2000	.04	.04	.04	.04
2.30	.99	Cen. Pat.	11400	1.33	1.40	1.29	1.32
.25	.09	Cen. Porc.	11500	.13	.14	.13	.13
2.34	1.87	Chemalloy	63030	1.87	2.34	1.90	2.34
.08½	.03	Cheskirk	11500	.02½	.05	.04½	.05
.21	.07	Chess	1000	.08½	.09½	.09	.09
.55	.19	Chesterville	129880	.41	.41	.38	.39
.28	.14	Chib. Cop.	23000	.19	.19	.17	.17
.93	.43	Chib-Jack	8400	.50	.53	.50	.52
.27½	.12½	Chib. K'rand.	6800	.14	.15	.13	.13
1.65	.60	Chib. Min.	9442	.78	.77	.72	.75
.69	.45	Chimo	20700	.59	.63	.56	.58
.12	.05	Chipman	1500	.05	.05	.05	.05
3.55	2.30	Chromium	2200	3.30	3.20	3.10	3.10
.22	.05½	Cleveland	8000	.08	.08	.07½	.08
..	..	Clix	nil	..	..	..	..
4.10	2.80	Cochen'r $.12	4350	2.95	3.00	2.81	2.85
.21	.08	Cody-Reco	2000	.09	.12	.11	.12
.19	.12½	Coin Lake	6000	.14	.14	.13½	.13½
.42	.35	Coleman A	142	↑.36	↑.36	↑.36	↑.36
.42	.35	Do. B	1290	↑.36	.36	.36	.36
.50	.25	Comb. Met.	3510	.31	.32	.30½	.32
.18	.07	Cominga	1000	.07	.07	.07	.07
.41	.09	Commercial	45050	.16	.19½	.15	.17
.75	.43	Coniagas	19900	.56	.58	.56	.58
.70	.27	Coniaurum	23760	.50	.50	.48	.49½
.35	.19	Conkey	1575	.24	.26	.25	.25
.15	.03	Cons. B'keno	27500	.06	.08	.06½	.07
.20	.03	Cons. Beta	13168	.09	.09	.08	.08
.21	.06	C. Bi-Ore	nil	..	B.06½	A.10	.06
.19	.07	C. Callinan	6850	.08½	.12	.09½	.11
.08	.04	C. C. Cad. Denison	nil	..	B.04½	A.05½	.04½
16.12½	9.63	▲▲1.00	25683	11.25	11.37½	10.37½	10.50
4.20	.22	Do. warr.	109145	.32	.35	.22	.22
4.15	3.55	C. Disc'y $.24	13950	3.65	3.70	3.60	3.65
.63	.23	C. Fenimore	12321	.31	.31	.29	.30
.19½	.06½	C. Gillies	1500	.07	.07	.07	.07
.37	.19	C. Gold. Arr.	2000	.33	.33	.30	.30
..	..	C. Goldfield	nil	..	..	..	.00½
1.65	.51	C. Hall'well	59050	.69	.69	.65	.66
4.50	2.50	C. Howey	700	2.85	3.00	2.85	2.95
.34	.24	C. Marbenor	7600	.28	.35	.30	.35
1.15	.46	C. Marcus	1500	.64	.65	.60	.60
2.55	1.01	C. Mogul	2550	1.18	1.20	1.16	1.16
.11	.07½	C. Monpas	1500	.10	.08	.08	.08
.44	.18	C. Morrison	13067	.25	.25	.23	.25
1.20	.63	C. Mosher	12900	1.00	1.05	1.00	1.02
.36	.13	C. Negus	16800	.18	.20	.18	.19
.08	.04	C. Nich.	1000	.04½	.04½	.04½	.04½
1.24	.24½	C. Northland	17200	.43	.46	.41	.43
.20	.09	C. Pershcourt	nil	..	B.10	A.12	.12
.45	.24	C. Que. G.	nil	..	B.30	A.43	.30
.19½	.04½	C. Que. Y.	2800	.05	.05	↑.02	↑.02
.13½	.03	C. Red Pop.	148200	.07	.10	.07	.08½
.25	.08	C. Regcourt	15000	.10	.11	.10	.10
.14	.05	C. San'rm	16000	.07½	.11	.07½	.11
22.62½	17.37½	C. Smelt. .80	8470	19.37½	20.00	19.25	19.50
1.10	.39	C. Sud'ry	55750	.45½	.47	.40	.44
.67	.40	Cont. Potash	nil	..	B.32	A.35	.40
8.25	3.50	Conwest ▲▲.06	7220	4.10	4.30	4.00	4.25
.74	.21	Copper Corp.	33300	.29½	.34	.29	.34
.16½	.08	Copper Man.	38500	.10	.13	.11	.12½
2.50	1.60	Cop. Rand	16014	1.73	1.80	1.70	1.79
.58	.26	Coulee	18950	.34	.36	.33	.36
.12	.07½	Cournor	2000	.09	.10	.09	.10
1.30	.56	Cowichan	4450	.67	.69	.65	.67
8.15	2.63	Craigmont	2600	3.95	4.00	3.85	3.90
.12	.08	Crestaurum	500	.09	.10	.10	.10
.13	.06	Croinor	12000	.08	.13	.07	.10
.19	.08	Crowpat	44500	.09	.12	.08	.08½
.18	.06	Cusco	22500	.07	.07	.06½	.07

D, E, F

.40	.15	Daering	70450	.18½	.20	.16½	.17
.74	.23	D'Aragon	15900	.33	.33	.30	.31
.34	.10	Decourcey B.	3500	.12	.12½	.12	.12
.27	.15	Deer Horn	90950	.25	.27	.24	.25
.19½	.09½	D'Eldona	56699	.13½	.14½	.13	.14
.74	.43	Delnite	500	.60	.46	.46	.46
.12	.08	Dickstone C.	nil	..	B.09	..	.09
.17	.06	Dolsan	nil	..	B.08	A.09½	.07½
21.12½	15.75	Donn .70	2465	19.37½	19.25	19.00	19.25
.15	.07	Donalda	3500	.07½	.09	.08	.09
.46	.11	Duvan	31700	.18½	.22	.18	.19
.16	.05	Duvex	18300	.06	.07½	.06	.07
.10	.06½	East Amph.	4000	.06	.10	.08½	.10
2.15	1.25	East Mal.	45838	1.62	1.78	1.60	1.72
2.75	1.41	East Sull.	6227	1.75	1.75	1.70	1.75
2.13	.80	Elder	43737	1.40	1.52	1.36	1.36
.50	.20	Eldrich	8500	.21	.24	.23	.23
.14	.06½	El Sol	20800	.08	.08	.07	.07
.45	.15	Eureka	7500	.21	.23	.21	.23
.13½	.05	Explor. All.	64700	.06	.07	.06	.07
.23	.09	Fab. Met.	31400	.11	.14	.10½	.12
..	..	Falconbridge	..	..	..	..	..
33.87½	24.37½	1.20	22590	33.50	33.87½	31.50	31.50
.09½	.03½	Fano	4000	.08	.04	.04	.04
1.12	.58	Faraday	18200	.82	.91	.85	.86
.19½	.09	Farw't M.	11450	.10	.13	.10½	.13
1.12	.34	Fatima	93230	.81	.84	.74	.78
.01	.00½	Flin Flon	10000	.00½	.00½	.00½	.00½
.07½	.03	Fontana '45	300	.04	.04	.04	.04
.50	.38	Forty-Four	nil	..	B.45	A.50	.38
.11½	.05	Francoeur	2500	.06	.06¾	.05	.06¾
.09½	.04	Friday	500	.05	.06	.06	.06
2.75	1.61	Frobisher	35008	2.04	2.10	1.96	2.07
85.00	75.00	Do. 4% deb.	100	82.00	82.75	82.00	82.75
.22	.05	Fundy Bay	13500	.07½	.07	.06	.07

G, H

.07½	.04½	Gaitwin	21100	.06	.06½	.05½	.06
26.50	23.50	Gaspe Cop.	25	25.00	↑23.50	↑23.50	↑23.50
24.50	15.87½	Geco	6295	17.62½	18.00	17.50	17.87½
.20	.10	Genex	9040	.12½	.14	.12	.12½
1.55	.70	Geo-Scient.	500	.90	.90	.90	.90
.33	.09	Giant Mas.	6050	.19	.18½	.15½	.18
11.12½	6.25	Giant Yk. .40	2553	10.25	10.12½	9.70	10.12½
.59	.20	Glacier	16400	.37	.37	.32	.37
.14	.07	Glenn Ur.	700	.07½	.07	.07	.07
.25	.15	Goldale	1000	.17	.16½	.16½	.16½
.02	.00½	Gold Lake	nil	..	B.01	A.02	.01¼
.80	.33	Gold. Age	7700	.39	.40	.35	.38
.46½	.22	Goldfields	199550	.25	.40	.23	.40
.27	.18½	Goldray	1866	.23	.24	.24	.24
9.00	6.00	Granby	nil	..	B7.00	..	6.00
.38	.14	Grandroy	4225	.16	.17½	.14	.14
3.25	1.00	Granduc	4100	1.39	1.40	1.30	1.35
.29	.15	Grandview	nil	..	B.10	A.15	↑.14
.01	.01	Great Falls	nil	..	B.00½	..	.01
.20	.03	Greyhawk	150800	.03½	.05	.03	.03½
.21	.05½	Gul-Por Ur.	nil	..	B.08	A.12	.06
.15	.05	Gulch	14000	.05	.07½	.05½	.07½
.11	.05½	Gulf Lead	10000	.05½	.07	.06½	.07
10.00	9.00	Gunn'r G. 1.50	16243	10.37½	10.75	10.12½	10.25
1.50	.75	Do. warr.	30560	.90	.97	.84	.88

Range 1959-60 High	Low	Company & Dividend ($)	▲Sales	Last Jan. 8	Week Ending Jan. 16 High	Low	Close or latest
.10½	.04	Gwillim L.	8130	.08½	.06½	.06	.06½
.10	.03	Haitian	69850	.05	.06½	.05	.06
2.70	2.00	Hallnor .16	1753	2.20	2.00	2.00	2.00
.14	.10	Hard Rock	11700	.10	.11	.10	.10
.25	.08	Harr. Min.	20060	.11	.11	.10	.10½
.25	.15	Hasaga	3000	.18	.18½	.18	.18½
.25½	.08½	H'd of Lakes	54000	.15	.15	.12	.15
.58	.23½	Headway	19650	.30	.30	.28	.30
.11	.04½	Heath	6800	.06	.06½	.05	.05½
1.95	1.35	High.-Bell Hollinger	1100	1.49	1.80	1.55	1.57
35.50	26.50	.24+↑.35	5036	29.62½	29.75	27.50	27.75
5.25	3.35	Hoyle	1300	3.85	3.75	3.55	3.75
64.00	47.50	Hud. Bay 3.00	5328	49.62½	51.75	49.75	51.12½
.20	.08	Hugh-Pam	500	.11	.11	.11	.11
.50	.30	Hydra Exp	5623	.40	.42	.39	.42

I, J, K, L

.72	.32	Inspiration	6533	.45	.50	.42	.50
.26	.07	Int. Ceramic. Int. Nickel	1000	.09½	.11	.11	.11
106.00	83.00	▲2.60+↑4.40	13547	104.00	103.50	99.25	99.25
.41½	.08	Int. Molybd'm	19900	.10	.12½	.09½	.12½
4.35	1.50	Irish Cop.	8000	1.60	1.72	1.60	1.68
3.25	1.60	Iron Bay	10700	2.30	2.60	2.30	2.55
.82	.30	Isc.-M.	52550	.45	.52	.41	.50
.67	.10	Jack Waite	562013	.28	.67	.26	.62
3.15	1.07	Jacobus	13250	1.36	1.36	1.25	1.29
.64	.20	Jaye	14000	.24	.28	.24½	.28
.21	.07	Jellicoe	12366	.10	.11	.10	.10½
.34	.09	Jobburke	14000	.11	.16	.11½	.14
.45	.21	Joliet Que.	7067	.27	.27	.26	.27
.26½	.12	Jonsmith	21400	.16	.17	.15	.15
.72	.35	R. J. Jowsey	8293	.41½	.40	.36½	.40
.14	.04½	Kenville	77600	.06½	.09½	.06	.08
21.50	18.25	K.-Addison .80	7581	21.25	21.12½	20.00	20.75
4.10	2.35	Kilembe	18330	3.50	3.75	3.35	3.75
2.17	.61	Do. warr. C.	12362	1.63	1.81	1.42	1.81
.86	.32	Kirk. Min.	10700	.39	.39	.37	.37½
.15½	.09	Kirk. Town.	1175	.09	.10	.09½	.10
.10	.05	Kontiki Lead	3100	.05	.06½	.05	.06½
.02	.01	Koot. Base	nil	..	..	..	.01½
31.25	24.00	Labrador $.25	1620	27.00	27.25	26.00	26.00
1.47	.60	Lake Cinch	1500	.82	.82	.76	.82
1.50	.60	L. Dufault	48820	.83	1.00	.82	.84
.11½	.06	L. Lingman	nil	..	B.07	A.08	.06½
.34	.18	L. Osu	3500	.19	.19	.18	.18
5.80	4.00	L. Shore	475	4.30	4.40	4.10	4.30
.38	.26	L. Wasa	1700	.30	.33	.31	.33
6.00	3.50	La Luz	nil	..	B4.10	A4.25	4.00
3.75	2.61	Lamaque .20	1620	3.10	3.20	2.95	3.20
.90	.83	Langis Sil.	23550	.86	.90	.85	.90
.33	.23	Latin Am.	3000	..	..	..	.26
1.61	1.10	Leitch G. .06	3900	1.40	1.40	1.32	1.32
.17	.06	Lencourt	500	.09	.08	.08	.08
.10½	.06	Lexindin	16300	.03½	.04	.03	.03
.07	.03	Lingside	4000	.06	.05	.04½	.04½
.20	.08	Lithium	nil	..	B.08	..	.08
2.48	1.61	Little L.L.	7437	1.53	1.90	1.85	1.86
.46	.14	Lorado Ur.	69600	.33	.36½	.30	.32
.23	.05	Do. warr.	1550	.07	.07	.07	.07
.12	.04	Louvicourt	2500	.05½	.06½	.06	.06½
.40	.11	Lyndhurst	24100	.18	.19	.17	.18
.22½	.07	Lynx Yk.	11000	.11½	.11½	.10	.11½

M

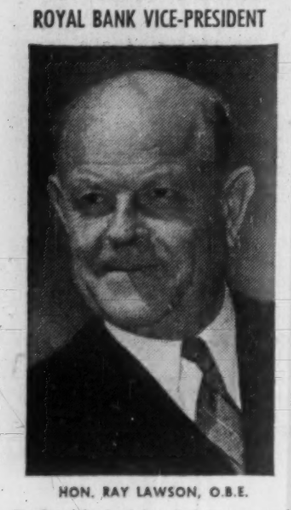
3.10	2.66	Macassa .12+↑.03	1000	↑2.65	2.81	2.70	2.70
.55	.25	MacDonald	14175	.30	.30	.26	.27
.16	.04½	Macfie	29000	.06½	.07	.06	.07
1.47	1.01	Macleod	34300	1.01	1.14	1.01	1.01
3.45	2.55	Madsen R.L. .10+↑.10	8560	2.67	2.70	2.63	2.68
.17	.06	Magnet	18500	.08	.10	.07½	.08½
.05	.02	Majortrans	1000	.03	.03½	.03½	.03½
1.25	.95	Malartic	6825	1.00	1.02	.96	.96
.11	.04	Maneast Ur.	111584	.04½	.09	.05½	.07
1.40	.85	Manitou-B.	2125	.88	.90	.90	.90
.42½	.13	Maralgo	233500	.16	.17	.15	.15
.17	.06	Marcon	3000	.10	.11	.09	.09
2.05	.98	Maritimes	59350	1.26	1.30	1.24	1.27
.47	.25½	Martin McN.	27050	.35	.36	.33	.34
.22	.08	Matachewan	12500	.09½	.10	.09½	.10
.28	.10	Maybrun	11932	.13	.13	.11	.13
31.62½	29.00	McIntyre new	5142	29.25	29.50	29.00	29.00
.48	.24	McK. R.L.	111753	.25	.31	.25	.26
.12½	.07	McMarmac	9100	.08	.08	.07	.08
.45	.25	McWatters	13950	.35	.38	.33	.35
.25	.10½	Mentor Exp.	42200	.16½	.19	.16	.17
1.90	.88	Merrill Is.	20100	1.08	1.14	1.05	1.12
.12½	.07	Meta Ur.	6500	.08	.08	.07½	.08
.55	.24	Mid-Chib.	2200	.31	.31	.30	.30
1.00	.50	Midrim	23040	.76	.84	.80	.84
.23	.12	Midwest	6000	.17	.17	.17	.17
2.90	.67	Milliken L.	36270	1.02	1.08	.90	.97
.09	.04	Mindamar	10000	.05	.06	.05	.06
16.37½	12.12½	Mng. Corp. 1.06	1678	12.50	12.62½	12.37½	12.37½
.27	.06	Min. Ore	7642	.08	.08½	.08	.08
.21	.08	Mogador	500	.08	.08	.08	.08
1.72	.72	Molybd'ite	400	1.10	1.12	1.00	1.00
1.25	.60	Moneta	3100	.73	.73	.69	.70
.30	.13	Monpre	3500	.22	.24½	.22	.24½
1.04	.50	Mt. Wt. Iron	11677	.53	.53	.51	.52
.68	.38	Multi-Min.	77000	.53	.59	.53	.56

N

.39	.15	Nama Cr.	11800	.20	.20½	.18½	.20½
.14	.05	Nat. Ex.	17200	.09	.10	.08	.08
.20	.05	Nealon	50725	.07½	.09½	.07	.08
.16	.12	Nello Min.	nil	..	B.13	A.18	.14
.37	.11	Nesbitt L.	11700	.14½	.17	.14	.17
.06	.03	N. Ainsworth	nil	..	B.05	A.06	.06
.12	.05	N. Alger	11000	.05½	.06½	.05½	.06½
.69	.24	N. Athona	6625	.34	.33	.30	.30
.13	.05	N. Bidi'e	174350	.11½	.13	.11	.12
.43	.24	N. Calumet	27100	.29	.30	.27	.30
.08	.05	N. Cronin	nil	..	B.05½	A.09	.07
.38	.12	N. Delhi	11000	.14½	.16½	.14½	.16
2.75	2.20	N. Dick'n .10+↑.02½	6175	2.30	2.34	2.25	2.25
1.15	.74	N. Far North	nil	..	..	A.40	.74
.36½	.07	N. Formaque	46300	.14	.15	.13	.14
.11½	.05	N. G'dvue	32010	.07½	.08½	.06½	.08
.17	.03	N. Hamil	1000	.04	.04	.04	.04
.15	.08	N. Har'na	7000	.09½	.10	.09	.10
1.53	.61	N. Hosco	121400	1.07	1.10	1.01	1.05
.10	.05½	N. Imperial	nil	..	B.06	A.06½	.06½
.05½	.03	N. Indian	5000	.04½	.05	.04½	.05
.12	.04	N. Jack Lk.	200	.04½	↑.04	↑.03	↑.03
.12	.06½	N. Jason	15500	.07½	.08½	.06½	.08
.27½	.06½	N. Kelore	23500	.11½	.12	.10½	.10½
.41	.14	Newlund	9200	.19	.20	.18	.20
.55	.30	N. Man.	4825	.35	.37	.35	.37
2.71	.68	N. M'l'que	408640	1.25	1.26	1.08	1.18
.09½	.04½	Newnorth	16000	.05½	.07	.05	.06
1.43	.43	N. Pac. Coal	8900	.60	.62	.55	.56
.38	.08	N. Rouyn	21000	.10	.12	.09	.12
.09½	.03½	N. Santiago	75528	.04½	.05½	.04½	.05
.10	.04	N. Senator	9200	.05½	.05½	.05½	.05½
.20	.12½	N. Taku	1000	.18	.17	.17	.17
.06½	.02½	N. Vinray	nil	..	B.03½	A.05	.03½
1.15	.46	N.W. Amulet	44600	.90	.90	.77	.83
1.15	.50	Nickel M&S.	117564	.68	.72	.64	.67
1.20	.45	Nickel Rim	1550	.65	.73	.60	.73
2.65	1.25	Nipissing	4100	1.45	1.46	1.40	1.40
.08½	.05	Nisto	42000	.05½	.07	.05½	.06½
.30	.06	Nocano	20000	↑.05	.09½	.08	.09½
.30	.15	Nor Acme	1000	.19	.20	.20	.20
.47	.11	Que. Cop.	47800	.17½	.18	.17	.17½
.07½	.03½	Que. Lab.	14500	.05	.05	.04	.04½
7.25	2.50	Que. Lith.	3550	3.15	3.15	2.91	3.00
.22	.10	Que. Man.	4100	.12	.12	.11	.12
.95	.45	Que. Met.	12755	.65	.65	.56	.61
.35	.14½	Que. Smelt.	5600	.16½	.17	.16	.17
.04½	.01	Do. warr.	nil	..	..	..	.03
.33½	.11	Queenston C.	25000	.14½	.16

ANNOUNCEMENT

ROYAL BANK VICE-PRESIDENT



HON. RAY LAWSON, O.B.E.

The Royal Bank of Canada has announced the election of Hon. Ray Lawson, O.B.E., as a Vice-President. A member of the bank's Board of Directors since 1935, Mr. Lawson is Chairman of Lawson and Jones, Ltd., of London, Ontario, and a Director of Great Lakes Paper Company Ltd., and of numerous other concerns. He is a former Lieutenant-Governor of Ontario and from 1953 to 1955 was Canadian Consul-General in New York.

Penny Stocks Start Boiling As Newkirk Mines Again

B. W. is back.

Bryan Winslow (that's the B. W.) Newkirk, 70-year-old Canadian mining promoter (also Florida real estate) with a North Carolina southern drawl, is making another attempt to develop a mine. His last success was **Faraday Uranium.**

His efforts, as in the past, result in some busy penny stock speculation along Bay St. and St. James St.

Newkirk, who once owned a converted navy Fairmile he named the Louvicourt after an early gold success, sold out the bulk of his Canadian interests about two years ago and went to Portugal and the U. S. He concentrated on developing Duck Key in Florida, where he had been active in the Florida real estate boom of the mid-20s.

His Canadian interests narrowed down to control of five companies and a large stake in **Bateman Bay Mining Co.** Major interests are **Kenville Mining, Bibis Yukon, Paramaque Mines, Vanguard Explorations** and **Canadian Northwest Mines & Oils.**

Since last fall there have been sporadic signs that B. W. was again looking at Canada.

This week, in typical Newkirk fashion (a private hotel party open to Bay St.) a $100,000 18-month exploration program was revealed. The search was on for gold.

The mine-exploration effort combines many of the elements which are part of any promoter's dream — the drama of the lone prospector with the rich gold find in the remote wilderness of the north, plus an added extra in the form of oil and gas permits in the Mackenzie River area between two wildcat wells.

As word spread that Newkirk was becoming active, interest perked up in his companies. Vanguard Explorations led as it jumped ahead 29c to a top of 40c.

The reason: Vanguard had acquired an option on a gold property 33 mi. northeast of Yellowknife in the Northwest Territories. This property is 34 mi. northeast of the rich **Giant Yellowknife Gold Mines** producer and 20 mi. southwest of producing **Consolidated Discovery Yellowknife Mines.**

It was obtained from lone-wolf prospector Louis Garskie who had high-graded $50,000 of gold over five years, working briefly in the summer months with hand tools and retiring south into Grande Prairie, Alta., to live off the fruits of his private gold mine.

Vanguard showed Garskie's proof of the surface riches of his 16-claim group on Sproule Lake, in the form of rock samples that will likely end up in government museums.

There were receipts from the Mint, government reports of brief surface visits to the property which Garskie and a fellow-prospector found some 11 years ago, and a visit last summer by W. W. (Bill) Plexman, who has had many years of experience in all aspects of mining from prospecting to mucking and who is also president of developing copper producer, **Consolidated Halliwell Mines.**

Plexman had known Garskie for some years. His report, together with a government report and questioning of Garskie, indicated 30 different occurrences of coarse gold on surface.

Garskie says: "The gold shows up when it rains and the rock is wet."

His reason for making the exploration deal? Louis Garskie (a bachelor still at about 60 and proud of it) was becoming a little concerned over accident possibilities when working alone in this remote location. He has built up his nest egg of a farm in Alberta, other properties and 11 beer bottles filled with gold (plus various high-grade caches on the property).

Now he wants to rest on his riches, let someone else do the drilling, blasting, mucking, crushing, panning, shipping of the gold which he did alone.

The arrangement with Vanguard gives the company a five-year option to acquire the property for $50,000. Garskie and his associates who are the vendors, also get 400,000 Vanguard shares of which 90% are escrowed.

This week, Garskie returns to his "Old Parr" group to chop the ice from a 26-ft. deep pit (he calls it a shaft), generally try to get parts of the property ready for examination by consulting mining engineer, Allen W. Jeckell.

Jeckell will exchange a briefly-acquired Florida tan (result of a huddle with Newkirk) for the icy burn of Yellowknife cold and snow as he lays out locations for a program of short-hole diamond drilling planned by Vanguard. Drilling is scheduled to start early in February.

Meanwhile, speculators watch other Newkirk companies rumored to be acquiring land in the area. Paramaque Mines is active and climbs from 8c to 14½c before dropping back to 11c. Bibis Yukon climbs from 9c to 15½c then slips to 12c.

Fellow-promoter Norman Vincent is supposed to be dickering for property; **Peerless Exploration** (at 31c compared with 33c recently) is also rumored to be examining possibilities. A small company, **Beneventum Mining Co.,** has a property 3½ mi. from the Garskie claims. Beneventum has two small, high-grade gold showings and has milled 15 tons which ran better than 3 oz. gold per ton.

Taking Stock

What's going on in the mining and oil markets — the facts and rumors.

By FRANK KAPLAN

A combination of interest in gold and speculation on exploration activity has focused some attention on the Bourlamaque-Malartic area of northwestern Quebec.

New exploration and some success by the **Little Long Lac** group of companies which dominate Malartic had previously attracted traders to the district.

Latest results come on the **Lamaque Gold Mines** property about 20 mi. to the east of **Malartic Goldfields.** Lamaque now is following up a rich hole in a new area which has raised many possibilities for other properties.

Gold stocks, generally, hold up against an otherwise declining market.

Here's how some Malartic-Bourlamaque properties trade.

	Latest Price $	Mid Jan. $	1959-60 High $	1959-60 Low $
Sigma	4.35	4.10	4.50	3.75
Lamaque	4.00	3.20	4.45	2.61
Aumaque	0.17	0.11	0.19	0.05
Sullivan	1.75	1.70	2.85	1.45
East Sullivan	1.80	1.75	2.65	1.41
Barnat	1.49	1.50	1.94	1.24
Canadian Malartic	0.45	0.46	0.84	0.30
East Malartic	1.65	1.72	2.15	1.25
Norlartic	0.22½	0.22	0.43	0.20
Malartic Goldfields	0.96	0.96	1.25	0.95

* * *

International Nickel reflects impact of decline on Wall St. where it is an active trader. At $98, Inco is back from a recent $106 high but still well ahead from its $83 low last year. **McIntyre,** another U. S. favorite, at $28 is down from a recent $29½ and leader **Consolidated Mining & Smelting** slips to $19 from $20.

* * *

Reports on underground exploration are starting to come from properties which have been working toward drill-indicated minerals. **Portage Island,** now opening copper at its Chibougamau property, rebounds to 92c after sliding from 91c to 83c. **H. G. Young** is also "making news" at its gold property and it climbs to 82c from 77c.

Some interest comes in the Mattagami camp following news that the key **Mattagami Lake Mines** property is going underground. **New Hosco,** expected to follow with a shaft when road facilities improve, hits $1.10, drops back to 97c then firms to $1.01. **Orchan** at $1.01 is ahead from a recent 81c bottom and **Radiore** at 68c compares with 66c. **Iso,** rumored dickering for a new property in the camp, trades narrowly at about 46c.

* * *

ON THE OIL AND GAS FRONT—prices are irregular and tend slightly easier as key Wall St. prices slide. Activity continues light with attention focused on wells starting to drill in northeastern British Columbia and in the Northwest Territories. The ground now is firm enough to start holes and to manoeuvre men and equipment.

Western Decalta spuds a well in the NWT at Rond Lake. This well is 40 mi. north of the Arctic Circle. Decalta at $1.40 holds steady at recent price levels. It has a 30% interest in the well. **New Continental,** with a 10% interest, trades at 34c, ahead slightly from 28c. **Glacier Explorers,** original holder of the land, retains a 25% interest. Glacier shares are at 37c, ahead slightly.

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EXPLORATION

Reach Deep Ore at H. G. Young

H. G. Young Mines is pushing exploration on all three levels at its Red Lake area gold property.

And because of success on the deepest level, plans are being made to establish another shallower level.

Latest results from the property come from the 934-ft. level where crosscutting has turned up four veins. The first vein average 1 oz. per ton over width of 4 ft. The third vein averaged 0.43 oz. per ton over 3 ft. and the other two veins carried low values.

On the upper, or 509 ft. level, drilling from the main drift has established five parallel veins over a 540 ft. section. One vein, 50 ft. west of the main drift has been drilled for a length of 350 ft. and averages 0.30 oz. per ton over width of 3 ft. A second vein, 100 ft. to the west returned an intersection of 0.66 oz. per ton across 1.4 ft. in the only hole to reach it.

Three veins have also been picked up east of the drift at 30, 260, and 440 ft. The closest vein average 2.46 oz. per ton across 1.4 ft.

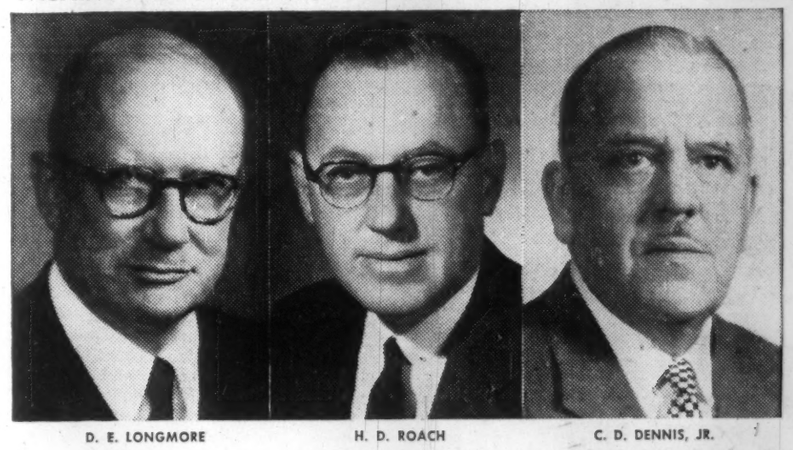
An offshoot of the main 509 vein has been picked up with values running up to 4.16 oz. per ton over true width of about 4 ft. The offshoot is believed to be about 200 ft. long.

On the 634-ft. level two veins are being drifted and a third has ben picked up in drilling. Two sections have been sampled on one vein returning 46 ft. of 0.27 oz. across 4½ ft. and 91 ft. averaging 0.95 oz. over 5 ft.

A sub-level at the 784-ft. level is a possibility, President B. W. Lang states. This would be established by raising from the 934-ft. level.

ANNOUNCEMENT

McKIM ADVERTISING LIMITED EXECUTIVE CHANGES



D. E. LONGMORE — H. D. ROACH — C. D. DENNIS, JR.

The Directors of McKim Advertising Limited announce the election of D. E. Longmore as Chairman of the Board, H. D. Roach as President and C. D. Dennis, Jr., as Executive Vice-President.

W. E. Charland continues as Vice-President and Secretary; L. R. Okill as Treasurer; and H. R. McDougal, formerly Chairman of the Executive Committee, resigns this office but continues as a Vice-President and Director.

Portage Probe Reaches Ore On First Level

In the tricky Chibougamau base metal camp, where interpretation of diamond drilling has at times proved disastrous, **Portage Island Chibougamau Mines** is starting to test its own ideas.

Since early last year, Portage has been hustling to get an underground look at its copper property. A shaft was completed last November to 750 ft. and levels established at 400, 550, and 700 ft.

This week first results of the probe were announced.

On the 400-ft. level, first of three levels to reach the ore zone, drifting has revealed 110 ft. of ore. The drift face and test holding is still in ore.

Copper assays over the first 60 ft. have averaged 2.85% over minimum average width of 13 ft.

In addition to assays for gold and more for copper, Portage must still test for the full width of the zone on this level.

On the other two levels, crosscuts have not reached the ore zone.

Results from all three levels are expected in the next few weeks, President E. R. E. Carter says.

New Ore Sparks High Keno Output

Rapid pace of mine development sparked record output levels during the last fiscal year of **United Keno Hill Mines,** President F. M. Connell told shareholders.

Development is still being pushed as the company probes the Elsa and Calumet mines.

In the Calumet mine the No. 18-19 vein is responding to probes north of previous workings.

On the 650-ft. level an ore length of over 500 ft. has been developed and raising has established vertical extent to 115 ft. above the level.

Work is now under way to test downward extension on the 775-ft. level.

In the first quarter (to Dec. 31, 1959) of the current fiscal year, output totaled 1,830,800 oz. of silver, 6,022,000 lb. of lead and 3,487,100 lb. of zinc, down from 1,954,100 oz., 6,018,400 lb. and 4,919,100 lb. respectively in the previous year.

Watch now for the base of the mining boom to spread into new high ground.

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ANNOUNCEMENT

A. E. HELM

R. K. BANISTER

Mr. A. E. Helm wishes to announce that he has completed arrangements to withdraw his active interests from the Pipe Line Construction business.

Mr. Helm and Mr. R. K. Banister have been successfully associated in the Pipe Line Construction Industry since 1948 and arrangements have now been completed whereby Mr. Helm has disposed of his interests in the following Companies to R. K. Banister:

FULTON BANISTER LTD.,
BANISTER HELM LTD.,
BANISTER CONSTRUCTION LTD.

Mr. Helm will continue to be associated with the Companies on a consulting basis.

Mr. Helm wishes to extend his appreciation to those persons and companies in the Pipe Line Industry for their co-operation and asks that their continued support be given to Mr. R. K. Banister and his Companies.

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NATURE OF BUSINESS FP-40

ANNOUNCEMENT

PLACE VILLE MARIE APPOINTMENT

R. A. SALOMON

Richard A. Salomon has been appointed as the leasing consultant for the retail areas of Place Ville Marie in downtown Montreal. The announcement was made by Fred Flemming, director of leasing, Webb & Knapp (Canada) Limited. Mr. Salomon has been active in commercial real estate development for the past eleven years. He is particularly well known for his shopping centre consulting and leasing accomplishments in Canada and the United States. Most recently, he successfully directed the leasing programme for Rockland Shopping Centre, Town of Mount Royal. Some 65 shops will be created on the Plaza and the Shopping Promenade in Place Ville Marie, along with parking for 1,600 cars. The shops are scheduled to open in 1962.

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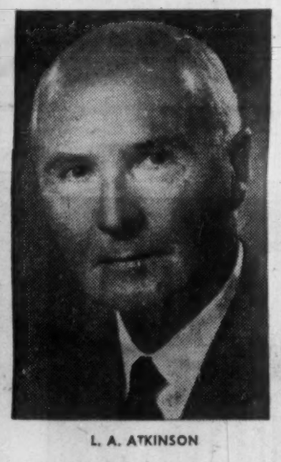

L. A. ATKINSON

L. A. Atkinson, a veteran of 36 years in the dairy business has been appointed General Manager of the Fraser Valley Milk Producers' Association, it is announced by the Board of Directors of the farmer-owned and operated B. C. dairy marketing co-operative.

He has served as Assistant-General Manager of the Dairyland Fluid Division since 1948.

Mr. Atkinson was Western Vice-president of the National Dairy Council in 1952-53 and industry representative on the Advisory Committee on Food Technology of the Defense Research Board, in 1953-55.

New Lead-Zinc Ruling May Not Be Onerous

From Our Own Correspondent

WASHINGTON — The fate of Canada's $50 million worth of lead and zinc exports to the U. S. is once again in the hands of the U. S. Tariff Commission (**FP**, Jan. 9).

Hearings concluded in Washington this week with statements from the Canadian Metal Mining Association and **Consolidated Mining & Smelting Co. of Canada.**

The Canadian comments provided some balance to the one-sided story the Tariff Commission had heard about the miseries of the U. S. domestic industry being caused entirely by imports.

The commission now will take one or two months to make up its mind on whether there should be higher tariffs and tougher import quotas against lead and zinc imports.

It is anticipated here the Commission will recommend slightly tougher restrictions, probably similar to those recommended to the President a year and a half ago.

At that time, Mr. Eisenhower agreed to impose new restrictions but did not make them so onerous as some members of the Commission had recommended.

If new import curbs are recommended by the Tariff Commission this time, the Senate Finance Committee may put these in legislative form and try to get Congress to pass on them.

With both Congressional and Tariff Commission backing, the President would have a more difficult time rejecting the curbs, especially in an election year.

Time, however, may be on Canada's side this year, since the 1960 Session of Congress will be a short one due to the election campaign and any tariff boost legislation would be most carefully examined by the House Ways and Means Committee.

V. C. Wansbrough of the Canadian Metal Mining Association offered eight economic facts of life for the commission to consider:

- **Canada is the largest** single supplier of lead and zinc to the U. S.
- **Only one small segment** of the U. S. lead and zinc producing industry, mining low-grade uneconomic deposits, has been in distress and required help.
- **The root cause** of the depressed state for lead and zinc is over-supply, which affected all countries. The cause of this oversupply was mainly due to U. S. efforts to ensure adequate supplies during the Korean War.
- **U. S. lead and zinc imports** from Canada have not increased since 1953.
- **Canada is a dependable source** of needed materials and is the U. S.'s best customer with a running deficit.
- **Artificial trade barriers** shift the distress unnecessarily to Canada and other countries, inflated U. S. domestic prices, encourage substitution and must inevitably curtail U. S. exports.
- **Canada and the U. S.** are jointly defending North America from attack and this should lead to the fullest interchange of trade in strategic materials and minerals.
- **For many years** Canada has had an adverse trade balance with the U. S.

Medallion Meet Approves Merger

Shareholders of **Medallion Petroleums** and **Eastwood Oil** have approved merger arrangements between the two companies. Merger will be completed on basis of nine shares of Medallion for 10 shares of Eastwood.

As a result, Medallion will hold interests in 242 oil wells (equal to 80.74 net wells), 66 gas wells (13.16 net wells) and varying royalty interests in 391 oil wells and 33 gas wells.

Oil production is expected to reach 730,000 bbl. or 2,000 bbl. a day, a company statement says.

Canada Second In Uranium

From Our Own Correspondent

WASHINGTON—The U. S. has taken the lead away from Canada as the world's number one producer of uranium.

According to figures released by the U. S. Atomic Energy Commission, U. S. producers in fiscal 1959 shipped 15,162 tons of uranium oxide.

During that same period, Canadian producers shipped 13,506 tons, the AEC reports.

This is the first time the U. S. has produced more uranium ore than anybody else.

Consol. Negus In U.S. Oil Hunt

Consolidated Negus Mines, through a wholly owned subsidiary, plans to start probing for oil in Kentucky.

Pampas Petroleum has acquired four separate parcels in the central part of the state and plans are now being made to begin drilling, President P. C. Nedham states.

Because oil is found at shallow depths — about 700 ft. — drilling and exploration is inexpensive, Mr. Nedham says.

Company Report

Mining

CONSOLIDATED DENISON MINES had a net profit of $17,897,300 in 1959, ahead 87% from $9,556,113 in preceding year.

The mill treated 2,046,250 tons of ore for an average recovery of $24.19 per ton, ahead from 1,861,229 tons at $22.74.

Mine operating costs were trimmed $1.53 to $9.24 a ton as result of higher ore grade, higher operating rate, and increased efficiency. Further cost reductions are expected as program of mechanization in the mine and mill continues.

One such improvement is a plan to scrape ore from stopes directly onto conveying belts, avoiding the present haulage from the stope to the conveying belt.

Company's first dividend of $1 a share was paid Sept. 30. By then it had retired $20,642,000 in Series A and B bonds and a temporary bank loan, and established working capital as required by a trust deed.

Denison has entered negotiations for acquisition of additional contract of $48 million from an unstated company, President Stephen B. Roman states. (This is believed to be **Can-Met Explorations'** contract.)

The report reveals that Denison and Can-Met are planning a merger. The two companies have agreed with **Perini Ltd.** on terms on settlement of claims by the latter for $2,745,015 owing under two contracts with Denison.

If Denison and Can-Met are amalgamated by March 31, 1960, claims by Perini will be settled in full through payment of $2,112,500. This agreement is not reflected in the balance sheet.

Denison has established an exploration division which has been examining properties in Canada and abroad. In addition the company will consider diversification into non-mining fields, Mr. Roman states.

INCOME ACCOUNT		
Years Ended Dec. 31:	**1959**	**1958**
	$	$
Total revenue	49,494,592	42,333,537
Less: Oper. exps.	20,696,887	21,513,817
Gen. exps.	799,676	670,668
Operating profit	27,998,029	20,149,052
Add: Other income	176,948	.....
Net earnings	28,174,977	20,149,052
Less: Deprec.	8,224,393	7,802,000
Interest	1,058,284	1,795,939
Def. dev. & preprod.	995,000	995,000
Net profit and surplus	17,897,300	9,556,113
Earnings per share	$4.62	$2.15
Shares o/s at Dec. 31:		
Common, $1 par	4,451,265	4,451,215

CONDENSED BALANCE SHEET		
As at Dec. 31:	**1959**	**1958**
Cash	$1,133,349	.....
Short-term invest.	5,014,666	.....
Mktble. secs.‡	2,656,378	.....
Conc. settlements	5,609,989	$5,434,332
Accts., etc., rec.	333,752	518,278
Supplies	2,166,312	2,293,005
Total curr. assets	16,914,446	8,245,615
Invest. in subsid.	100,000	.....
Prepaid exp.	62,166	67,899
Bd. issue exp.	686,714	941,714
Advances	682,600	180,750
Misc. assets	31,454	31,454
Def. dev. & preprod. exp.	3,329,360	4,225,465
Mining props.	269,309	269,309
Bldgs., plant, etc.†	26,495,055	33,157,556
Total assets	48,451,104	47,119,762
Bank loan	.....	19,014
Accts., etc., pay.	2,580,716	5,067,233
Prov. for taxes	2,473,000	1,510,000
Total curr. liab.	5,053,716	6,596,252
Bank loan (secured)	.....	6,000,000
Funded debt	17,639,000	22,000,000
Capital stock	2,901,902	2,901,852
Earned surplus	22,515,241	9,281,113
Contrib. surplus	341,245	340,545
‡Mkt. val.	2,403,723	.....
†After deprec. of	15,920,655	7,802,000
Working capital	11,860,635	1,649,363

Note—Contingent liability as at Dec. 31, 1959, re housing project amounted to $864,000.

RAYROCK MINES

There's Gold in Uranium (When the Mine is Empty)

J. C. (Jerry) Byrne, 49-year-old member of the fourth generation of a mine-developing family, knows how hard it is to find a gold mine.

The Byrnes (his father is the J. J. Byrne of Canadian gold mining fame) have worked as a family unit in finding gold, and Jerry has as his main responsibility the rich Yellowknife area gold property of **Consolidated Discovery Yellowknife Mines.**

Last November, Jerry Byrne suddenly found that he was sitting on a gold mine even if most people thought it was an empty uranium mine. It was **Rayrock Mines** in the Marian River area of the Northwest Territories.

Rayrock didn't have the yellow gold so popular with the ladies. But what it did have was "as good as gold" — a contract (which it couldn't fill alone) to sell 1,045,980 lb. of uranium oxide to the government.

This week, Byrne and the other Rayrock shareholders are settling back to find ways to put to work some $5 million that will pour into the treasury over 27 months without even taking the risk of drilling one drill hole or lifting a pound of rock.

Give or take a few dollars for expenses, some possible tax arguments, etc., Jerry Byrne figures that Rayrock at worst should be able to net better than $4 million of the $5 million-plus it is getting for its contract.

And, as Rayrock's annual report points out, the company has current assets of $879,227 and current liabilities of $36,091. That includes cash of $192,397, treasury bills of $295,595 and taking listed stocks at market value of $264,929.

With 4,358,765 shares outstanding, that's foreseeable liquid assets equivalent to around $1 a share.

This rich cash kitty has been the main factor in market interest in Rayrock shares in anticipation of a contract sale. Rayrock stock trading at 60c, has come up from a 25c level at the end of October, 1959. It was as high as 68c recently.

The deal that gives Rayrock its foolproof gold mine is the first to be made among the uranium mines since the announcement last November of permission to switch contracts. The move is designed to stretch out the life of some mines.

The U. S. and U. K. — Canada's customers for uranium — had decided to drop their options on Canadian uranium that, if taken up, would have given life to the mines through to 1966.

Since this news, the mines with ore reserves have been trying to obtain contracts from mines in a weaker position. Further arrangements are expected at any time.

Rayrock made this deal with **Gunnar Mines:**

- **Gunnar will sell Rayrock the necessary pounds of oxide to fill its contract. Rayrock gets as income the difference between the price it receives from Eldorado Mining & Refining** (the crown buying agency) and the price it pays Gunnar.

Neither Rayrock nor Gunnar will give exact figures beyond the statement that Rayrock gets a gross profit of $5 million "plus" from Jan. 1, 1960 to March 31, 1962. Gunnar is still looking for other contracts (is believed to have tied up **Canadian Dyno Mines**) and other deals are being worked out. Exact figures, it is felt, could prejudice negotiating positions.

However, a little arithmetic indicates approximate figures. These suggest that Rayrock will pay something over $6 a lb. to Gunnar for the ore delivered to Eldorado under the contract. Rayrock's contract price is believed to be around $10.80 a lb.

Advantages to Gunnar include:

- **Life of its Beaverlodge area mine is extended by some seven months** at its capacity rate which the company intends to maintain.
- **Gunnar will defer its own shipments to the amount it sells to Rayrock until after March 1962.** It thus will receive advance payment of $2.50 per deferred lb. under the terms of the agreement with the U. S. and U. K.

Rayrock as the first company to work out an arrangement on its contract probably also represents the simplest deal. Rayrock is debt free. Unlike other uraniums, there are no bondholders to have first claim on sale of contract.

Byrne who knows the risks and costs of operating in the Northwest Territories, says: "I wouldn't have gone ahead with Rayrock if it had meant debenture financing."

Rayrock's plans include a stepped-up exploration program for new territories. An exploration department has been established which since last July to November examined 24 properties in the field, looked at an additional 43 properties in Canada and the U. S.

In addition it has a 1.6% interest in wildcat acreage in the Brazeau area of Alberta where **Imperial Oil** is to drill a $1-million test well.

At the annual meeting on Jan. 28, shareholders will be asked to authorize sale of mining plant. Byrne is looking to possible tax arguments involving write-offs.

Rayrock could, it is felt, sell its plant to establish a terminal loss and write off the loss. There is also a good chance that the company will be able to write off shafts and main haulageway.

ANNOUNCEMENT

PROMOTION

G. GRIFFITHS, B.Sc., (C.E.), M.Eng.

Canadian Liquid Air Company, Limited announces the appointment of Mr. George Griffiths, B.Sc. (C.E.), M.Eng., as Manager of the Production Department at the Company's Head Office, Montreal, succeeding the late Lionel Dimitri. Mr. Griffiths was formerly Assistant Manager of the Production Department, a post he had held since 1957.

Start the New Year Right!

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EXPLORATION 'Mo.1'

This expedition is the first of a series planned by Dominion Exploration Projects. An experienced prospecting crew, consisting of Harold Harrison and Howard Lang, of Vancouver, B.C., will leave Vancouver early in the spring of 1960 to prospect and stake claims where warranted in a well-located area of **MOLYBDENUM** mineralization in the coastal section of Southwestern B.C. Four to six weeks is the allotted time for this project.

PURE MOLYBDENUM METAL IS CURRENTLY SELLING AT A PRICE FAR IN EXCESS OF THE ORDINARY BASE METALS.

The offering of units to finance this prospecting expedition is strictly limited to the sale of two hundred and ten $10 units making a cash total of $2,100.00 and representing a 70% interest in this project. The balance, a 30% interest, is to be shared equally between the two prospectors named above.

The sum of $2,100 is estimated as the total expenditure for this expedition including wages costed at $10 per man per day, transportation, supplies, recording claims, administration and all other related expenses.

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A Fast-Approaching Point of No Return

EARLIER THIS MONTH WE SAID IT: "Complete your investment procedures before February!" Since then and as we write, six of our selected 25 securities have advanced up and away from originally recommended buy levels. Ordinarily, this is when we would withdraw the Big 25 from circulation, but this year—and due only to the exceptionally strong outlook for a medium-term bull market on Bay Street—we've decided to revise the book instead. We can guarantee its availability throughout the remaining 8 days of this month—with the understanding that at any time in February, a volatile market move may require its withdrawal at once and without notice. In short, the point of no return is fast approaching, AND WE CAN'T GO ON REVISING THIS BOOK FOREVER. If you've so far failed to anticipate a major upswing on the TSE-CSE, take advantage now of our once-a-year free offer to all new Forecaster subscribers—

"25 BEST CANADIAN STOCKS FOR 1960"

FOR THE PRE-SPRING RALLY and when February copper is being quoted at 35c a pound—**Five Base-Metal Mining Stocks**—junior and senior producers in a recommended price range between $3.50 and $46. This is the cream, and watch it rise over the short to medium term.

FOR INCOME FROM YIELD, minimum vulnerability plus capital appreciation over the longer term — **Five Industrials** currently trading on the downside—good solid companies, one a specialty available below $5 par share, the others priced from near $17 to $36.50.

FOR SOLD-OFF, BASED-OUT SECURITIES with tremendous potential—**Five Gas-Oil stocks** due for a healthy rally this year and truly steep appreciation over the longer pull through mid-decade. Price Range—$7.50-$25.

FOR THE SPECULATIVE IN-AND-OUT TRADERS—Five Mining Stocks near $2 and as low as the pennies. Above-average speculations for volatile upswings from present levels. All listed on the TSE, aggressively sponsored, adequately financed and with too many shares in the hands of the public. Everything from columbium and iron to copper and silver here; two are producers, one a dividend payer.

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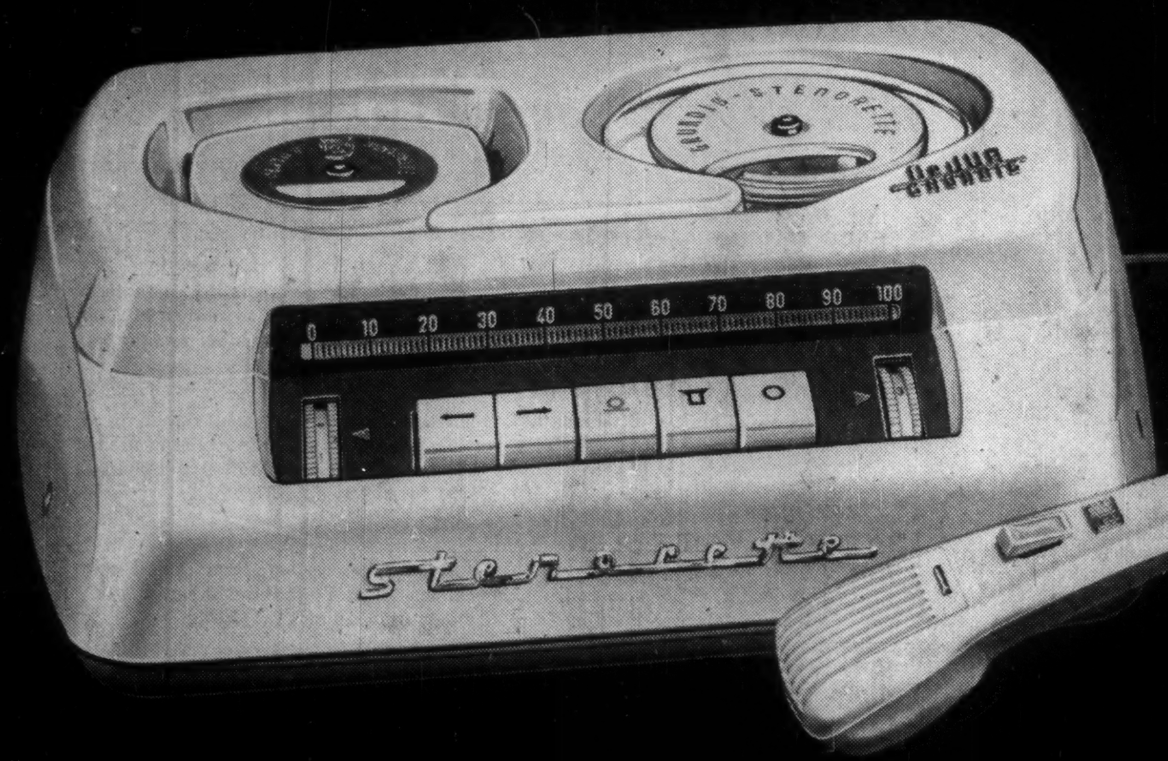

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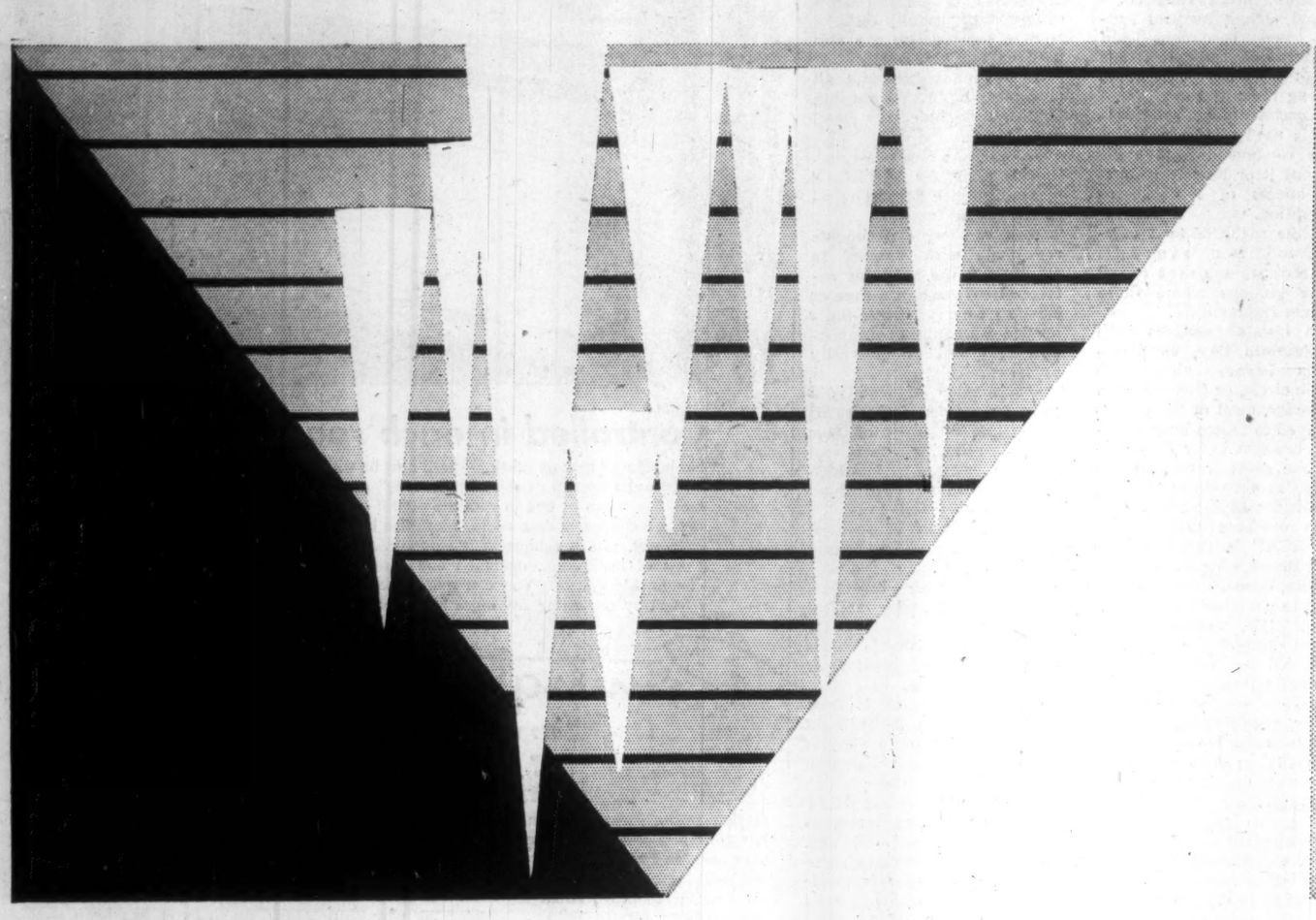
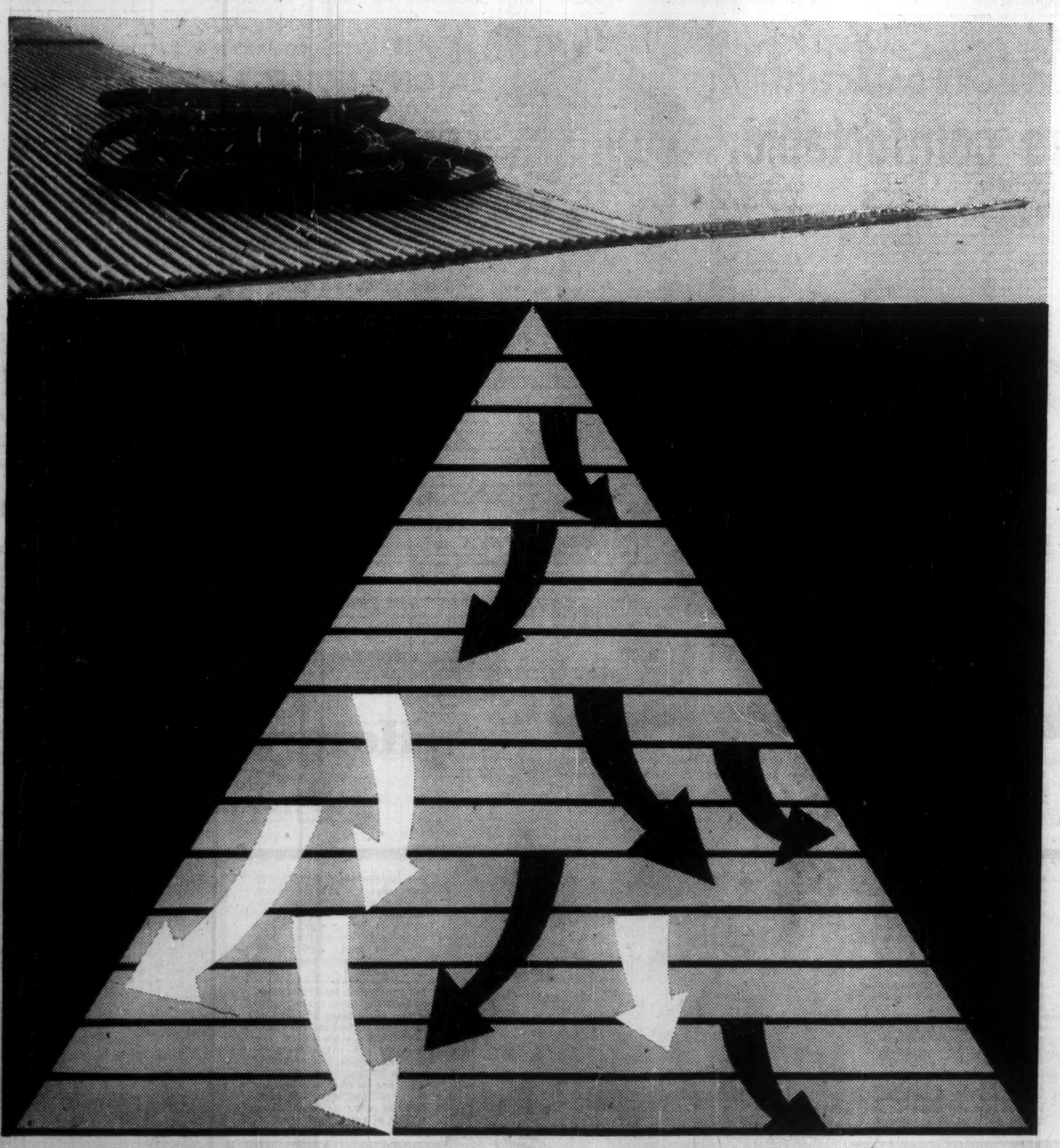


REFRIGERATION AND AIR CONDITIONING



Climate control soared for an estimated 30% gain in Canada last year. Now, our refrigeration and air conditioning industry rides the crest of the demand for higher living standards. It provides a tool with which we win greater control over environment. It is a vital key to tremendous changes in the food industry. It plays a necessary part in many specialized industrial processes.

For business and industry, climate control wins and keeps good employees, tenants and customers, leads to higher production and less absenteeism among staff. Competition demands it today.

Sales of installed systems and equipment last year were around $100 million—a record performance. The off-season outlook is for a banner 1960.

In housing, offices and institutions, retail and service establishments, in transportation and special industrial processes—watch for coming higher standards of comfort and efficiency through refrigeration and air conditioning.

a feature report

Environment

And Health in the Air

C. R. ROSS, L. RISPLER

Occupational Health Division, Department of National Health & Welfare

The atmosphere which surrounds us at all times is the most essential component of our environment.

It supplies the oxygen necessary for our vital combustion processes and furnishes the medium by which body temperature is controlled.

The condition of the air is therefore of fundamental importance to health.

The most important contribution of air conditioning to health is to maintain the body in a state of thermal equilibrium.

The main function of an air - conditioning system therefore is not to warm or cool the body but to produce an environment in which the body is enabled to lose an amount of heat corresponding to that generated.

Heat is lost by processes of radiation, convection and evaporation, and for the most comfortable surroundings these heat losses must be made without conscious bodily adjustments.

The graph illustrates the relative importance of the various heat loss mechanisms at different dry-bulb temperatures.

Air - conditioning systems also contribute to health by improving the cleanliness of the air.

Each day we take into our body some 30 lb. to 40 lb. of air, a quantity far exceeding the total intake of food and water. Removal of air contaminants such as dust, pollen and tobacco smoke is therefore generally desirable but may be of great importance to persons suffering from allergic diseases.

Air filtration in relation to the spread of infection in hospitals is being studied intensively.

Efficiency of filters for pollen removal has been recently reported.

The very special problems related to air cleanliness and conservation in relation to space flight has been the subject of a recent paper.

One contribution of air conditioning to health is to improve humidity control during the winter.

When outdoor air at 0 deg. F. and 35% relative humidity filters into a nonair conditioned building and is heated to 70 deg. F. the relative humidity of this air is reduced to 7% which is much drier than the air of the driest desert.

Very dry air acts like a sponge absorbing moisture from the skin at an excessive rate, creating a cooling effect.

To compensate for this feeling of cold, room temperatures are usually increased which produces warmth but not comfort.

Dry air also absorbs moisture at an excessive rate from throat and nasal passages causing discomfort, and possibly increases susceptibility to colds and other respiratory diseases.

When consideration is given to the dust which is suspended in air, it is evident that air conditioning has a definite health aspect from this standpoint alone.

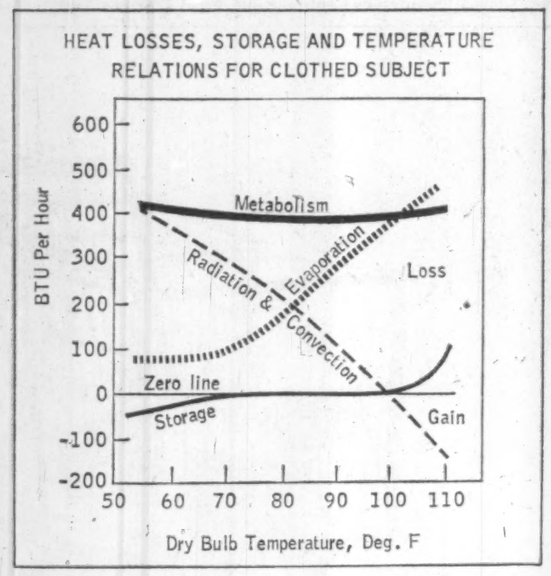
Dust is usually composed of both organic and inorganic matter which has been picked up by the movement of the atmosphere.

The removal of this dust is one of the basic considerations in air conditioning. Its importance can be appreciated by the fact that bacteria do not always float self-suspended in air but collect and travel upon dust particles.

The transfer of micro-organisms from one person to another by means of the air we breathe is also reduced in air conditioning due to the dilution effect resulting from changes of air and the control of air movement throughout a building.

With regard to health effects of people entering and leaving air - conditioned spaces, the American Society of Heating and Air Conditioning Engineers notes that research and practical field experience indicate prompt, easy and safe adjustment in the heat regulatory mechanisms of healthy people.

It has even been suggested that sudden temperature changes may be beneficial.



The accumulation of evidence resulting from various studies indicates that where one can work and live in greater comfort and avoid the mental and physical annoyance of noise, dirt, draughts and unsatisfactory temperature and humidity, the output of productive work is increased.

The results of a recent study conducted by the General Services Administration of the U. S. Government indicated that the work production of office workers was increased by an average of 9.5% as a result of air conditioning.

Such measurements, most easily obtained among groups performing routine work, can logically be assumed to apply also to those engaged in more creative types of work which require the greatest mental energy and concentration.

A good indication of the validity of benefits of air conditioning is the extent to which it has been adopted as a sound investment by many industries, **not only to facilitate manufacturing processes and improve products but also to improve working conditions for employees in shops and offices alike.**

The significant advantages of air conditioning of schools, universities and hospitals are even more readily apparent.

One of the best summaries of the literature on the subject of air conditioning in relation to health and comfort to appear in recent years is a paper by Thomas Bedford of London, Eng.

In this paper attention is given to the various indices of comfort, the relation of skin temperature and comfort, radiant heating and humidity.

The essentials of a pleasant and healthy environment, in addition to the maintenance of a desired effective temperature were said to be a slight but variable air movement (above 15 ft. per min. but below 50 ft. per min.), a humidity between 30% and 60%, a wall temperature slightly above the air temperature, a thermal gradient from floor to head level not exceeding 5 deg. F., an elevation of the radiant temperature at head level as a result of heated ceilings not exceeding 4 deg. F., a floor temperature not over 77 deg. F.

Air conditioning in relation to health becomes of vital necessity in some industries where men must work at high temperatures.

A great deal of effort has been directed to the definition of the maximum limits of heat which can safely be tolerated by healthy individuals.

Many papers have appeared in the literature on this subject. One of the best published recently is the paper by Parmeggiani, in the I.L.O. Occupational Safety and Health Journal.

A recent development of interest in relation to air conditioning and health is an instrument which records simultaneously environmental air, wet-bulb and radiant temperatures as well as air velocity.

With an instrument of this type it should be possible to obtain more comprehensive data on thermal environments in industry.

How RCAF Applies Products, Systems

There are two main uses for refrigeration in the Royal Canadian Air Force: The preservation of perishable goods and arctic research.

Food, drugs, medical supplies and specimens and photographic suppplies are kept under refrigeration to prolong their lifetime.

Experimentally, refrigeration is used with a negative view — how to get along without it or how to combat the effects of natural refrigeration.

In the realm of food services and food storage, refrigerators are used on all RCAF stations where there are messing facilities.

On isolated stations such as Resolute Bay, on Cornwallis Island, within the Arctic circle, or Goose Bay in Labrador, most of the food is received in frozen bulk quantity, brought in by ship during the summer months and stored in deep-freeze for the remainder of the year.

At overseas units where the RCAF is supplied with food through the U. S. rations system, deep-freeze units are used to store the frozen meat, fowl, fruit, vegetables and juices shipped from the U. S.

RCAF stations in Canada normally receive three days' supply of fresh food at one time, and storage is maintained in a walk-in type of refrigerator.

Freezers, of the ice-cream cabinet type, usually on loan from a local dairy, are also used on most stations.

In most hospitals and all new mess buildings, messing facilities include a small deep-freeze.

Research on food preservation is done for the RCAF by the Defence Research Laboratories in Toronto.

Most of these experiments are made with a mind to eliminating the need for refrigeration, since in a time of emergency, power-units needed to maintain refrigeration may fail or be easily damaged.

Dehydration of food is a primary concern. Dehydrated meats lose 70%-75% of their weight, reducing space and tonnage necessary in shipping the food and dehydrated foods do not spoil easily.

In the realm of medical services, general refrigeration is used to preserve drugs, vaccines, biological preparations and medical specimens.

All such perishable goods are stored in refrigerators or deep-freeze units.

Climatic research is done by the RCAF's Institute of Aviation Medicine in Toronto in the Defence Research Board's cold chamber, which is used jointly by the RCAF and DRB, where temperatures as low as —60 deg. Cent. can be simulated.

Tests are made on arctic and flying equipment and clothing such as flying suits, G-suits, exposure suits, helmets, goggles, flying boots, and oxygen masks.

Other equipment for use under arctic conditions such as primus stoves, containers for liquids, and foods and materials such as rubber, plastic, leather and metals are also tested.

Most of this refrigeration research done by the IAM is made with the psychological and biological aspects of human reaction in mind.

DRB is building new climatic chamber at the DRML site at Downsview, Ont.

The physiological research section at the Downsview laboratory will undertake various tests on human reactions and also responses of clothing materials to subzero temperatures for the RCAF.

The Central Experimental and Proving Establishment at Uplands, Ont., and CE & PE Detachments at Namao and Cold Lake, Alta., also do experiments on flying equipment and clothing.

These studies are made primarily on the wearing quality of the materials. Using small refrigerators, only one of which is of the walk-in variety, tests are also made on armament stores, instruments and aircraft parts.

Again, refrigeration is used only in order to perfect equipment for combating the effects of natural refrigeration.

During the winter months, these studies are also conducted under natural conditions at Churchill, Man., by members of the CE & PE Detachment at Namao.

Refrigeration is also used for the storage of photographic supplies.

Color, and black and white unexposed film is kept in small refrigerators in order to give it as much lifetime as possible.

On a more general scale, the principle of refrigeration is used throughout the RCAF where air-conditioning units with cooling systems have been installed.

The cockpits of several types of RCAF jet aircraft are fitted with air-conditioning units which incorporate air cooling systems.

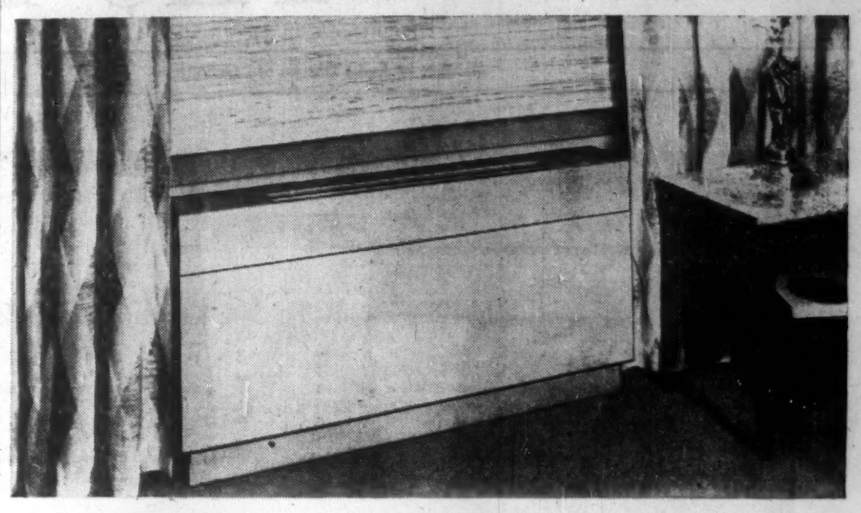
Until the last few years, the problem of maintaining equitable cockpit temperatures has been confined generally to providing sufficient heat.

With the advent of supersonic aircraft, however, the problem of refrigerating cockpits to keep temperatures down to a required level becomes more important, and refrigeration equipment will play an important role.

In RCAF buildings, air-conditioning systems are used in cases where the preservation of foodstuffs or operating conditions for equipment necessitate specific temperature ranges and humidity control.

Remington AIR CONDITIONING

HEATING or COOLING for MULTI ROOM BUILDINGS—



Controlled in each room!

No building—new or existing—need now be without air conditioning. This "Remington Incremental System of Air Conditioning" can be installed room by room. In existing buildings it can be tied in with the central steam or hot water system to give both heating and cooling in each room, controlled by the occupant. No water or water tower is necessary, as this equipment is air-cooled.

Costs of installation, operation and maintenance are substantially less than for any comparable system. You can quickly learn the many advantages of the Remington System by contacting any office listed below.

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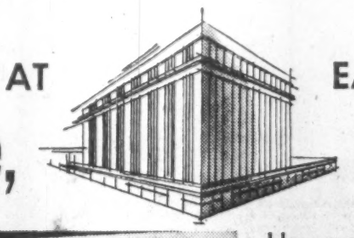
A HONEYWELL SUPERVISORY DATACENTER AT



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keeps customers comfortable, cuts costs

AT EATON'S COLLEGE STREET, CUSTOMER COMFORT IS GUARDED at a pleasant 76°F., and relative humidity is kept at 50%. It is estimated that this air conditioning system is equivalent to 2,100 window units. It could cool 400 6-room homes. It removes enough heat to melt 1,050 tons of ice in 24 hours.

Nerve center of the air conditioning system is a Honeywell Supervisory DataCenter incorporating automatic temperature checking and fan control providing ONE MAN with a complete and constant check on temperatures. Should there be undue variations or mechanical failure, the location and cause can be rapidly detected. Thus, the Supervisory DataCenter operator can correct conditions before discomfort occurs.

Honeywell Automatic Controls can save money in the operation of any building... regardless of size

Every 11½ minutes during summer months, each cubic foot of air in Eaton's College Street Store is replaced by a cubic foot of comfortably conditioned air. A Supervisory DataCenter enables ONE MAN to supervise the operation of the entire air conditioning system. Consider the savings in manpower alone. Without a Supervisory DataCenter, it would be necessary to have a crew of men walking through the building, measuring temperatures, operating fans and checking equipment for optimum performance.

In addition, the extreme sensitivity and fast response of the system will save thousands of dollars on fuel and power bills... can pay for itself in only 3 to 6 years in a typical building.

A Honeywell Supervisory DataCenter can increase comfort and efficiency in your building new or old; factories, offices, hotels, motels, apartments, schools and churches. It is easy to operate, requires no special training.

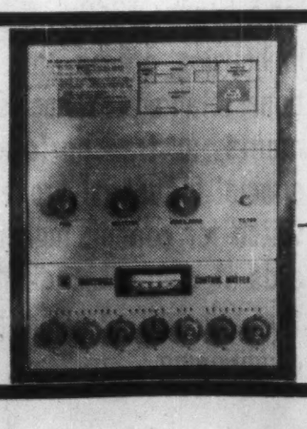
A truly automatic control panel... a Honeywell Supervisory DataCenter ... can properly be provided only by Honeywell. Because only Honeywell manufactures all types of control equipment... electronic, electric and pneumatic... and all the necessary equipment for such an installation. Honeywell is a single source of supply for thermostats, valves, switches, indicating, recording and control instruments, and all necessary components for the entire job. By the same token, Honeywell engineers will take full responsibility for this equipment... for its installation and maintenance. For complete information, call the nearest Honeywell office, or write Honeywell Controls Limited, *Commercial Division*, Toronto 17, Ontario.

Honeywell

First in Control

SINCE 1885

HONEYWELL CAN PROVIDE AUTOMATIC CONTROL FOR EVERY SIZE OF BUILDING

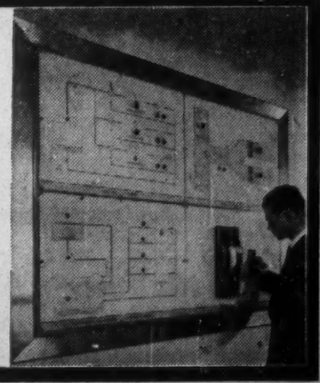


SIMPLICITY PLUS ECONOMY. For even the smallest air conditioning system, Honeywell supplies the Control Master ... a simple electronic panel controlling up to seven zones. The Control Master permits the building owner or manager to start or stop equipment, adjust temperatures or supplies of fresh air without leaving his own office.

AIR CONDITIONING SELECTOR is engineered for single-zone buildings, such as groceterias, branch banks and so on. The unit illustrated automatically controls year-round air conditioning in a 25,000 square foot area. It regulates air intake as required by internal conditions.

THIS SUPERVISORY DATACENTER incorporates a graphic layout in colour of a complete air conditioning system. It was designed to give a medium-size building all the economy and efficiency made possible by such centralized control of temperature.

THE HONEYWELL SELECTOGRAPHIC DATACENTER saves space by projecting floor plans and system diagrams at the touch of a button on the console screen. The operator can check temperatures and adjust key operating points for that floor or system. Thus one set of control buttons —one compact unit—can regulate the entire air conditioning system of any size building.



Trend of '60s: Year-Round Climate Control

Never before has the potential for this industry been brighter . . . thanks to the 1959 heat wave

By RAY MAGLADRY

The 1960s are opening on a high note for refrigeration and air conditioning.

Never before has the potential for this industry been brighter than right now.

And its growth curve in the 1950s has shown some sharp swings upward.

But now:

- **Off-season activity for air conditioning** is bubbling as never before.

For that: Thank the blistering and sweltering days of summer 1959.

- **The recession past, economic growth** for the country generally is under way.

That spells growth for both air conditioning and refrigeration.

- **The trend to wider applications continues** to color the picture brightly.

In housing, office and institutional buildings, in retail and other public places, in specialized industrial processes, in food distribution and in transportation — refrigeration and air conditioning consolidates its rapidly gained position and rolls ahead for new gains.

- **Acceptance generally is on an upward trend,** and with it more sophistication on the part of customers.

That is good news for the industry — for unknowing customers are eventually unhappy customers if their purchase is not wisely made.

But there is still a long way to go.

As industry spokesmen point out, there are still equipment and systems being installed that are unsuitable for the customer's real requirements.

Potential buyers sometimes still fail to turn to professional counsel when an installation is being considered.

But, over the long term, customer satisfaction will grow with greater understanding of the purpose and the economics of air conditioning.

"The competitive aspect of controlled climate is growing all the time," one engineer points out.

"That in itself will help create a demand for quality. The fly-by-night and the slip-shod have no place in this business and they'll have less in the future."

How did the industry make out in the past year?

Total sales value of all installed systems and equipment is estimated at $100 million.

The highlight, in terms of startling figures, is found in the unitary or self-contained field of air conditioning.

Room air conditioners and the "package unit" types had sales in 1959 of nearly double previous year figures.

In many cases, stocks were cleaned out as dealers tried to meet the demand.

The full result of this sweltering heat wave, however, cannot be measured alone in sales of these smaller units.

For one thing, many dealers and distributors are in a clean position as a result of it, able to stock newer models now.

This will mean the public will get the advantage of newer developments and improvements.

The carry-over effect of 1959 is proving to be a major one.

It's reflected all across the board in this off-season.

And that includes the big, central, completely year-around air-conditioning jobs for large buildings.

This is just what the industry asks for, to relieve the pressure during the hot season. And, of course, more time means more satisfaction for the customer.

"The air-conditioning industry has had its best year to date," says J. C. Galbraith, of **Frigidaire Products of Canada.**

"Instead of sales confined to spring and summer, demand for window units continued through the fall and into the winter.

"Many people feel that after the continued hot, humid weather of last year they would prefer to flip a switch rather than pick up the telephone for installation of a unit on the first hot day of summer."

Retail stores, banks, drugstores, restaurants are also having their air conditioning installed in the off season, Mr. Galbraith points out.

"This allows the installation to be made at a time when the installing staff is not under pressure. The result is a more carefully installed system with less interruption for the customer.

"There is also a saving in the cost of subtrades, that is electricians, plumbers, sheet metal men and so on, since this is their slack season.

"The trend in refrigeration continues toward the packaged system. For example, our water cooler has a unit package containing the chiller and condensing unit.

"The casing with fountain can be fastened to the wall and plumbing connected. Either then, or later, the refrigerating package can be slipped in, connected to the power and water lines to provide cooled water.

In event of service problems, the cooling system can be replaced with a minimum of interruption in service."

Ice cube maker machines have become a necessity in restaurants, motels, bars, hospitals, institutions and lunch counters.

Summer resorts, whose owners used to have ice cut in the winter and stored in ice houses, now find it is less costly and much more convenient to use ice cube making machines and electric refrigeration to meet their cooling requirements.

They say in long run that free ice is more expensive, less efficient and less convenient than electric refrigeration.

Another industry member looks at the outlook and current trends:

"Prospects are good. Despite tight money, construction seems to be brisk and the number of types of buildings being air conditioned is increasing steadily," according to Bob Adessky, president of **Polar Electric Refrigeration Co.** in Montreal.

But the general increase in business is being accompanied by sharper competition and lower profit margins for the industry, he points out.

Two highlights, Mr. Adessky believes, are the emergence of Canadian consulting engineering firms and the trend for air-conditioning contractors to assume role of mechanical contractors.

Great steps forward are being made in the mobile refrigeration field, according to Harold E. Farmer, sales manager of **Peninsula Electric Refrigeration Co.** of Hamilton.

There is also a trend toward full home air conditioning.

"The past summer found us in the position of not having sufficient units available from the manufacturer to supply the demand," Mr. Farmer says.

Industry and business generally now recognize the advantages of air conditioning, P. J. Perrotti of **Worthington (Canada) 1955 Ltd.,** believes.

"Probably the more important aspect of refrigeration and air conditioning in general which has been de-emphasized in the past is the quality of refrigeration and air-conditioning systems being installed today.

"Economy of operation with regard to all aspects of an installation has taken a back seat to initial installation cost.

"This fact puts the industry in a poor position and can be extremely detrimental to the industry in the future.

"We feel that the refrigeration and air-conditioning industry has done an excellent job of selling refrigeration and air conditioning to the public, and now the most important and probably most difficult task for our industry is to educate the public with regard to the desirability of procuring a system which will provide true air conditioning, efficiently and most economically.

"Many of the laymen placed in the position of purchasing refrigeration and air-conditioning systems have a tendency to associate refrigeration and air conditioning with only cooling.

"The fact of the matter is that true air conditioning includes cooling, heating, dehumidifying, humidifying, air distribution and filtering of the air being circulated when outdoor temperatures are either above or below the indoor or enclosed space temperature.

"All of these requirements are important to the good air-conditioning system and the proper air-conditioning system takes careful consideration of all of these factors.

"The tendency to settle for the cheapest rather than the most economical and efficient air conditioning or refrigeration system by the public, has resulted in the installation and acceptance of systems which are somewhat less than proper air conditioning.

"Many comments we hear from people occupying so-called air conditioned areas, reflect the fact that most of these air conditioned areas are merely being cooled and not being air conditioned at all.

"We feel that our industry must make definite and elaborate plans for the education of the general public with regard to true air conditioning.

"This is a tremendous task, and can only be accomplished by the co-operation of all factions of the air conditioning and refrigeration industry.

"When this is accomplished, both the air conditioning industry and the public will receive the true benefits of a science which has taken many years to perfect."

Most contractors in early 1960 report they have never seen a similar off-season splurge of interest in air conditioning.

"We are kept hopping to supply data and quotations as a great many customers plan to put air conditioning into their 1960 budgets," one contractor says.

Figures for 1959 are not final yet for all segments of the industry.

And in many cases, big spurts came toward year end.

But DBS statistics for first 10 months show the trend.

- **Room air conditioner** shipments up 80%.
- **Packaged self-contained** types ahead 37%.
- **Unit coolers for refrigeration** up 14%.
- **Display cases** rose 14%.

As the new decade opens, the industry eyes a number of growth areas.

One of these is the residential field.

It has only begun to grow but industry spokesmen look to this field as one with maximum potential for the future.

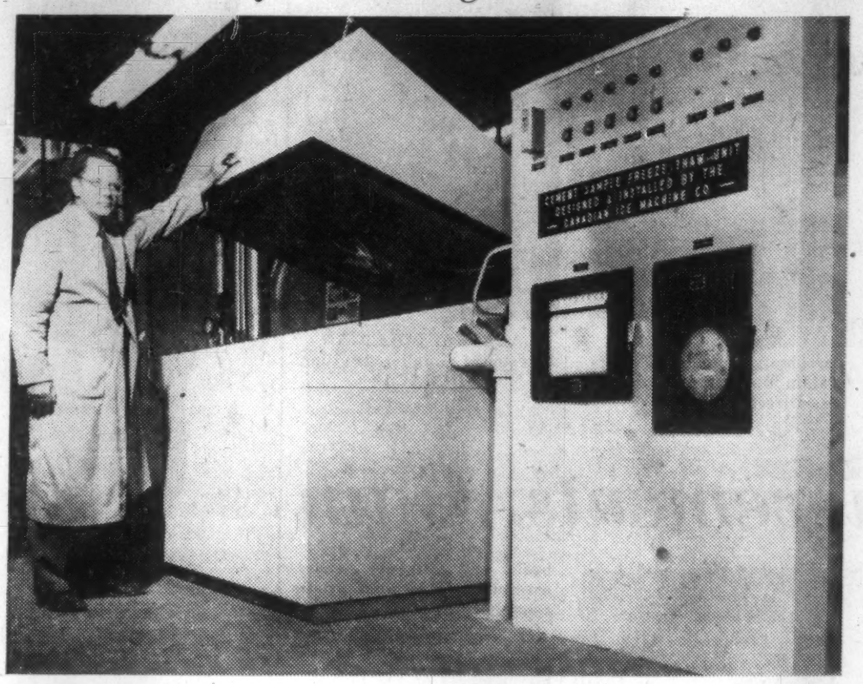
Another growth section:

The food industry and the trend to self-serve merchandising at the retail level.

Here, refrigeration contractors have been stepping in to help store operators — particularly independents — plan their new store or the renovation from start to finish.

"Some of the contractors take it from the plot of land to the point where they hand the key over to the operator," a supplier says.

"Refrigeration in the modern store has become so important, it is natural that our industry is playing such a big part in planning."



AUTOMATIC, rapid-cycle concrete testing unit in use by Department of Mines & Technical Surveys, Ottawa. Weathering tests involve consecutive cycles of freezing and thawing through use of refrigeration equipment.

Trend of Shipments

Value of Shipments ($ 000)

	10 Mos. 1959	10 Mos. 1958	Total 1958
Condensing units	2,625	2,876	3,218
Compressors & units	519	443	541
Air conditioning units not self-contained	2,333	2,691	3,386
Room, window type conditioners	2,197	1,220	1,245
Packaged, self-contained conditioners	2,256	1,649	1,870
Refrig. unit coolers	1,060	933	1,121
Air cond. coils	976	916	1,127
Beverage coolers, ice cream cab.	1,641	1,548	1,671
Display cases	3,485	3,059	3,678

Source: DBS.

Hotelkeepers Sell Climate Indoors, Out

Travel because of climate has been promoted for many years now.

Today from a different standpoint, Canada's hotels, motels and even some restaurants also are selling climate.

Now the sales story is based not on nature but on climate inside the hostelries.

This emphasis on climate and climate control has partly been brought about by the competitive nature of the hotel and motel business.

Larger and more luxurious motels are meeting the competition of plush hotels by introducing air conditioning in its most sophisticated stage.

One combination hotel-motel, **The Eldorado** in Vancouver, for example, has recently installed electronic air cleaning.

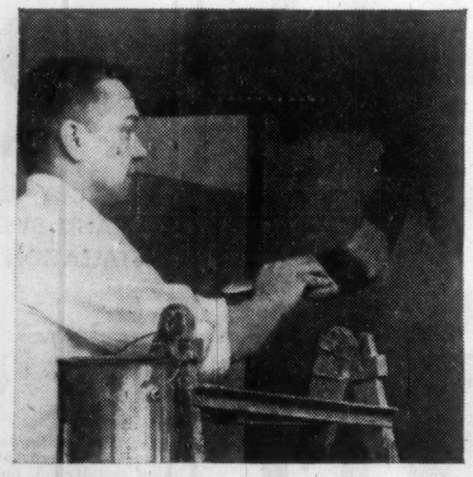
Electronic air cleaning keeps the interior almost 100% free of dust, dirt, allergens, and the smoke nuisance frequently associated with restaurants and cocktail lounges.

According to W. T. E. Duncan, commercial division manager of **Honeywell Controls,** there has been a marked increase in interest among hotel and motel owners in comfortable indoor climate.

Already widely accepted as a basic standard for guest comfort is the idea of individual room temperature control, which allows the guest to dial his own room temperature by means of a wall thermostat for greater personal comfort.

WHO SAID DIRT CHEAP?

Air-borne dirt costs business millions . . . wastes air conditioning dollars

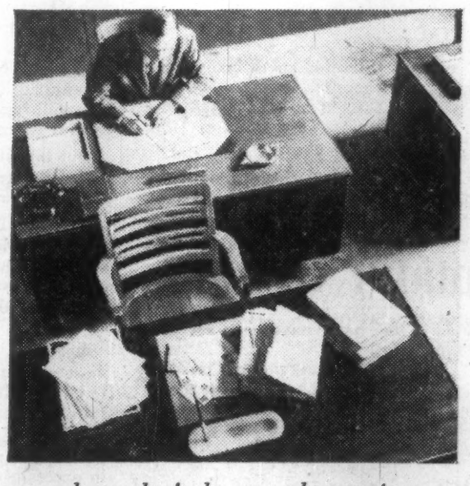


. . . clean air saves expensive decorating

Honeywell Electronic Air Cleaner traps smoky, dirty airborne particles. Clean air prolongs the life of paint, wallpaper and furnishings, reduces need for frequent cleaning and decorating.

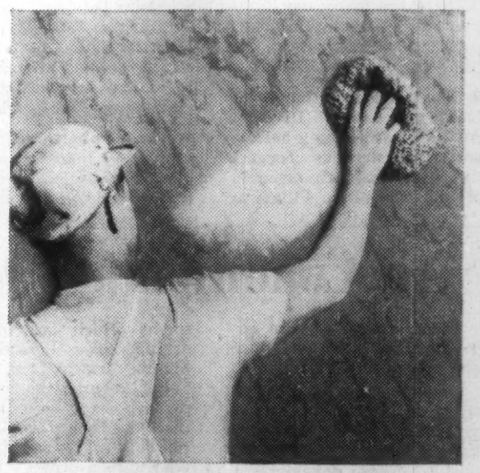
. . . clean air cuts merchandise losses

Honeywell Electronic Air Cleaner removes tobacco smoke and other impurities to cut losses from soiled merchandise. Clean air reduces the need for dust covers.



. . . cleaned air lowers absenteeism

Honeywell Electronic Air Cleaner removes at least 90% of bacteria, viruses and pollen from the air . . . reduces communicable diseases and allergy discomfort.



. . . clean air saves cleaning dollars

Because of air-borne dirt, cleaning and painting cost 40¢ of every maintenance dollar, Honeywell's Electronic Air Cleaner removes 6 times more dirt than ordinary air filters.

A Honeywell Electronic Air Cleaner cuts air-borne dirt losses . . . saves up to 20% of air conditioning operating costs.

Freedom from the scourge of air-borne dirt means a bigger profit margin, a substantial saving in air conditioning dollars.

A Honeywell Electronic Air Cleaner does such a complete job of purification it can cut air conditioning costs up to 20%. Here's why: It reduces the need for "pulling in" large volumes of outside air that may be costly to cool or heat. Air that is already heated or cooled can be *cleaned* and recirculated.

The Honeywell Electronic Air Cleaner removes at least 90% of bacteria, viruses and pollen from the air . . . reduces the danger of communicable diseases and allergy discomforts. Helps hold down costly absenteeism.

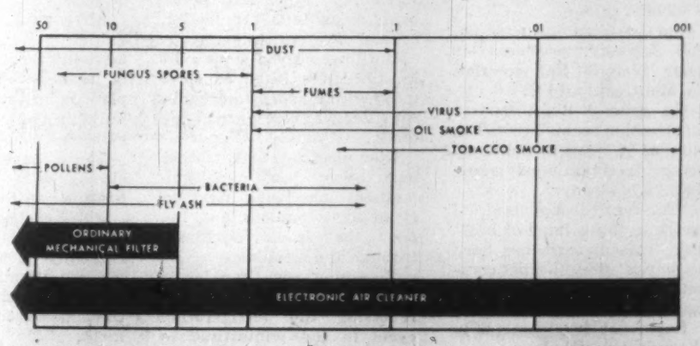
What ever your business, you'll realize worthwile savings in reducing cleaning and decorating costs. These, plus other savings, will more than pay for the initial installation of a Honeywell Electronic Air Cleaner.

FOR ANY SIZE BUILDING. All Honeywell Electronic Air Cleaners are built around a basic cell that permits easy, fast "building-block" construction to fit any air system—supermarket to skyscraper. The "building-block" technique has another economic advantage, too—it provides easier servicing.

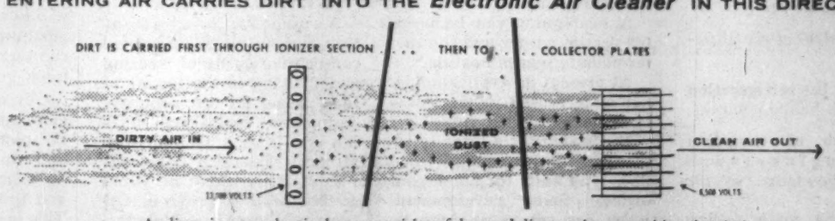
For expert information and assistance in specifying or installing Honeywell Electronic Air Cleaners call the nearest Honeywell office, or write to Honeywell Controls Limited, *Commercial Division*, Toronto 17, Ontario.

HERE'S PROOF—

Common air-borne contaminants range in size from 50 to .001 microns. In this area are the major causes of soiling and many respiratory ills. It should be noted that the ordinary mechanical filter removes only part of these contaminants—for practical purposes, very little under 5 microns. But notice the wide range of protection you get with a Honeywell Electronic Air Cleaner. Here you get not only the removal of large coarse particles, but microscopic carriers of many other kinds of dirt and disease, as well.



ENTERING AIR CARRIES DIRT INTO THE *Electronic Air Cleaner* IN THIS DIRECTION



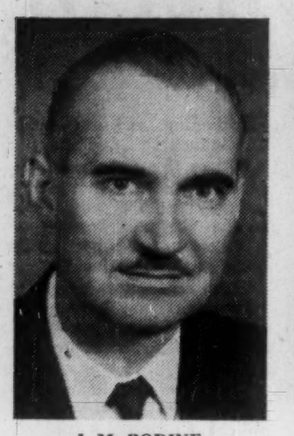
As dirty air enters the air cleaner, particles of dust and dirt are given a positive electrical charge. The dirty air then passes over collector plates which have a negative charge and collect all the dust and dirt particles . . . just as a magnet attracts iron filings.

Honeywell

First in Control

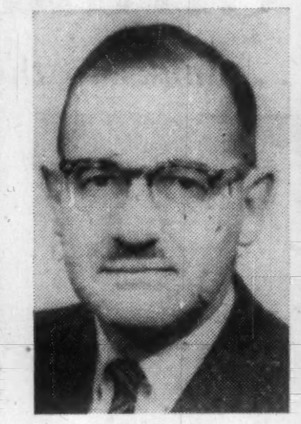
SINCE 1885

They Head CRACA

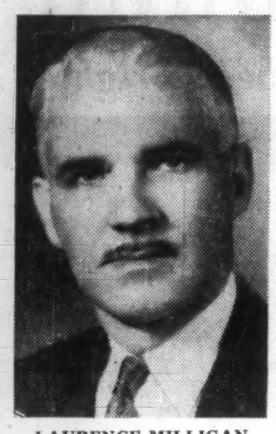


I. M. BODINE
President, Canadian Refrigeration & Air Conditioning Association

J. B. GRAYDON
Vice-President, CRACA, and President, Air Conditioning & Refrigeration Contractors Assoc. of Ontario



E. G. PULLEN
President, Canadian Refrigeration Manufacturers Assoc., Director of CRACA



LAURENCE MILLIGAN
Director of Suppliers Division of CRACA

A Year of Achievements, Gain

By I. M. BODINE
President, Canadian Refrigeration & Air Conditioning Association

When the first executive officers of the Canadian Refrigeration and Air-Conditioning Association (CRACA) took over in January, 1959, the road ahead was obscure.

The aims and objects of this newly formed association were clearly defined, but little information was available to answer the vast accumulation of problems.

Here was a newly formed association, believed to be the first of its kind anywhere, established to provide an organization of sufficient scope to embrace and act for all facets of the industry: The manufacturers, wholesalers, contractors and supporting suppliers.

The membership potential was pure speculation, the budget expenses only a rough approximation, and the organizational structure pure supposition.

Today, almost a year to the day later, we have exceeded our membership quota, met our financial budget, and we have sound local branch organizatio s functioning in principal cities from Montreal to Vancouver.

The year 1959 has been good for the refrigeration and air conditioning industry of Canada, and it has been kind to our association, CRACA.

The enthusiasm with which members from all parts of Canada have helped us achieve these goals has been most gratifying.

There are many more important accomplishments entered in the records for the first year of CRACA's life:

- **The Ontario Section of the Contractors Division, ACRCA, has set up a bid depository system** in conjunction with the Toronto chapter of the Canadian Plumbing and Mechanical Contractors Association.

E. W. HORWOOD
President, Canadian Refrigeration & Air Conditioning Wholesalers, Div. of CRACA

T. W. McLORG
Executive Secretary, Canadian Refrigeration & Air Conditioning Association

This system provides an orderly bidding arrangement within jurisdictional boundaries on contracts for refrigeration and air-conditioning equipment.

- **The eastern section of the Wholesalers Division has formulated a confidential system for the exchange of information on delinquent accounts.**

This information is provided monthly and is channeled through the office of our executive secretary.

Recently the Manufacturers Division has been requested, and has accepted the invitation, to participate in this arrangement.

Numerous merchandising problems of long standing within the Wholesalers Divisions have been more clearly defined as a result of regularly scheduled group meetings of the members.

- **The training of apprentices** within our industry has been carried on by local groups on a provincial level, with a measured degree of success in some areas.

In other localities very little or nothing has been done to cope with this problem.

No attempt has been made in the past to co-ordinate the provincial groups or provide an accepted program of standardized training on a national scale.

This is now under way. The Department of Labor in Ottawa has agreed to establish a national training program for apprentices for the refrigeration and air-conditioning industry, with the co-operation of the provincial departments and our own association committee.

They have also agreed to provide a complete analysis of our industry. This analysis will be supervised by the director of vocational training for the federal Department of Labor.

Qualified personnel from within our industry will be requested to assist the department in making this analysis.

- **The Operating Engineers Act and applicable codes have** been, and still are, under careful study by appropriate committees.

- **Charter membership certificates** have been issued to all members of the four divisions who joined the association before Jan. 1 of this year.

One hundred and thirty-nine certificates have been issued to charter members.

- **An association crest,** symbolic of the industry, was designed by the late Norman Marshall of Paris, Ont., for use by member companies.

We are confident that in years to come this crest will become synonymous in public mind with systems properly designed and properly installed.

- **A constitution committee** has made several revisions to the original bylaws to meet the more clearly-defined problems that have arisen.

The re-classification of membership in the contractors and manufacturers divisions was a major revision. A new graduated fee structure is another of the more important changes proposed by this committee.

- **Merchandising policies** have been the topic of discussion.

Some progress has been made but additional work must be done to bring the industry policies to the state of stabilization which is hope of members as a whole.

The agenda for our annual meeting to be held at the Alpine Inn, north of Montreal, Jan. 21-24, is evidence that our work has merely begun.

The greater part of two full days will be consumed to summarize briefly our past accomplishments, and lay out careful plans for the future.

Our industry has just completed the greatest year in its rapidly expanding history.

Sales of installed systems and equipment, we believe, should reach an all-time high of approximately $100 million when all the figures are compiled.

Year-end inventories in most companies are at an all-time low from a percentage standpoint.

Some companies in CRACA have reported sales for 1959 in excess of 200% over those for the year 1958 in the air-conditioning field.

All will tell you they have had a good year, and expect 1960 to be even better if we get a fair break from the weatherman.

The present over crowding of our schools and universities will bring about an ever increasing demand for additional accommodation during the next decade.

With an increase in facilities of this and many other types we can expect industry and commerce to enjoy a flourishing economy.

Air-conditioning and refrigeration will undoubtedly play an important part in this aggressive growth.

Our association, CRACA, will share these growing opportunities if we get off to a running start, and keep running.

Our association must be in close and constant touch with all phases of our business, and must be able to spot problems, anticipate trends, and provide sound guidance. This is a real challenge to the executive for 1960, but one well within reach if the spirit of co-operation is similar to that existing during 1959.

Air-Conditioning Demand Grows

The trend is to more air-conditioned office buildings and homes across Canada.

This growing demand is sparking important new developments in the air-conditioning and refrigeration industry. These developments are paying off in better, cleaner and more healthy working and living conditions.

Prospects for the industry are good.

One Canadian businessman, Bob Adessky, president of **Polar Electric Refrigeration Co.** Montreal told **FP**:

"In spite of tight money, construction seems brisk. The number of types of buildings being air conditioned is increasingly steady.

"The result is a general increase in the volume of business. This increase has been accompanied by sharper competition and lower profit margins."

Important developments in the industry include:

- **Controlling noise.**

- **Better control** of air filtration.

- **Reversing the refrigeration cycle** to give heat in winter.

- **Emergence of Canadian consulting engineers** with specialist knowledge of air conditioning.

One of the main selling points of air conditioning is quietness. Fresh cool air in summer and warm air in winter is fed into offices and rooms which are insulated against noises of street and highway traffic.

But keeping the noise out of air-conditioning equipment has been a problem. Research has resulted in new control measures.

These are mainly still in the design stage but "silent" air conditioners, especially individual units, are coming on the market.

Another important point being recognized is the better control of air filtration.

Until recently a simple 1-in. fibreglass filter or steel mesh with oil spray mechanical filter was considered adequate.

Now electrostatic filtration and other less expensive methods are being used to clean dirty outdoor and indoor air as it circulates through the machines.

Becoming very popular is the heat-pump. This is simply reversing the refrigeration cycle in the wintertime to heat, or partially heat the office and home.

A heat-pump can be used for partial winter and the intermediate season heating.

At present its application is not widely used in large installations.

But watch for a large sales drive in the heat-pump window type units for home and office. Some development work has yet to be done to adapt the heat-pump to cope with the rather severe Canadian winter. Tests in parts of the U. S., where winter is not too hard, have been successful.

The emergence of Canadian consulting engineering firms specializing in air conditioning is the result of the growing demand for controlled temperature.

These firms are designing good air-conditioning systems and, in co-operation with air-conditioning contractors, are making great strides towards perfection.

Air-conditioning contractors are assuming the role of mechanical contractors, simply because the main heating plant is an integral part of a building's air-conditioning system.

These experts also work closely with plumbing and heating contractors.

Refrigeration contractors are experts at their trade. Not only do they install the air conditioning but, if arrangements are made, will continue to service the equipment.

WEATHERING TESTS

Accelerated laboratory weathering tests involve consecutive cycles of freezing and thawing in the testing of the properties of concrete. Automatic, rapid-cycle testing unit is used by Industrial Minerals Research Laboratories of Department of Mines & Technical Surveys in Ottawa. Modern refrigerants and refrigeration equipment provide the means for reliability and accuracy in this work.

HERE is the motor engineered for refrigeration and air conditioning applications.

INTEGRAL HORSEPOWER
SINGLE & POLYPHASE
INDUCTION MOTORS

● PROTECTED - DRIP PROOF ● TOTALLY ENCLOSED - FAN COOLED

For over 75 years, Robbins & Myers have been solving power problems for a wide variety of industries . . . and now they offer Refrigeration Duty motors with the highest starting torque and moisture-resistant construction. CEMA rerated frames up to 50 h.p. are available for part winding start.

Let our qualified engineering department help solve your individual problems with custom designed electrical and mechanical modifications.

WRITE FOR BULLETIN 2001/F60

THE ROBBINS & MYERS COMPANY of CANADA LIMITED—BRANTFORD, ONTARIO

Motors Fans Moyno Pumps Propellair (Industrial) Fans Hoists

New-Design Refrigeration Boosts Produce Business

New-design refrigeration and space-saving compressor equipment are helping a Toronto firm to boost business at home and abroad.

- **The firm: Pearl Produce Ltd.,** Toronto.

- **The product:** Frozen egg yolks and whites, used mainly in baking

Pearl Produce, established in 1927 by Meyer Pearl, recently opened a modern three-story office and plant on Spadina Ave., Toronto. The plant processes over 1 million lb. of eggs a year.

Eggs are bought in all provinces and shipped to Toronto where they are Grade A tested by government and plant officials.

Pails of egg yolks and whites are stored in a large freezer room until sold to customers across Canada, in the U.K., Germany and France.

Business has boomed for Pearl Produce since **Canadian Ice Machine Co.** installed the new-design refrigeration.

Pearl Produce plant has some important features in construction:

There are four main rooms in the plant.

The egg storage and receiving room is 60 ft. by 40 ft. by 8 ft. high, with a capacity for 4,000 cases of eggs, and is held at a temperature of from 45 deg. to 55 deg. by a separate 5 hp Freon unit.

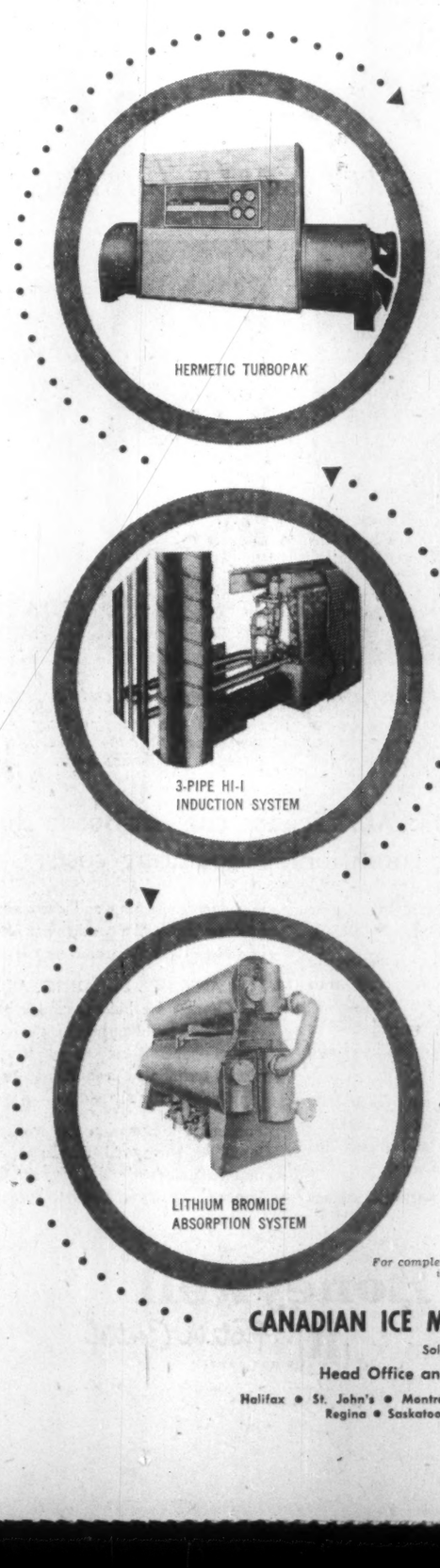
The grading room is held at comfort temperature.

The shell breaking room, where the shells are removed and the yokes separated from the whites, then put into different 40-lb. pails after government grading, processes from 12,000 to 15,000 lb. of eggs a day.

The cork insulated freezer storage room, which is 60 ft. by 15 ft. by 10 ft. high, with a capacity for 250,000 lb. of frozen yokes and whites in 40 lb. pails, is held at a temperature of minus 10 deg.

The model H9CE York 2-stage internally compounded hermetic compressor unit is equipped with rubber anti-vibration mounts.

No water is required for either condensing or defrosting purposes.



YORK
air conditioning
FACTORY ASSEMBLED UNITS AND SYSTEMS REDUCE INSTALLATION TIME AND COSTS

York Air Conditioning components are designed and engineered to provide maximum comfort with minimum installation, operating and maintenance costs. These factory-assembled units are compact, easy to install and are adaptable to any type of building and requirement.

YORK HERMETIC TURBOPAK

A packaged centrifugal water cooling system that is 50% smaller and lighter than comparable equipment. Smaller rotor and direct coupling makes this system quiet and vibration-free in any location. One piece, rigid base simplifies installation. 65 to 550 ton capacity. Also available are open type centrifugal water cooling systems in capacities up to 3,000 tons.

YORK 3-PIPE HI-I INDUCTION SYSTEM
Heats and Cools Without Changeover

York-designed, non-mixing 3-way control valve selects either hot or cold water and automatically provides the desired room temperature at any time of day, all through the year, giving greatest personalized comfort from room to room.

The initial cost of York 3-pipe system is comparable with regular 2-pipe systems yet it eliminates duplicate zoning equipment, costly controls and saves space.

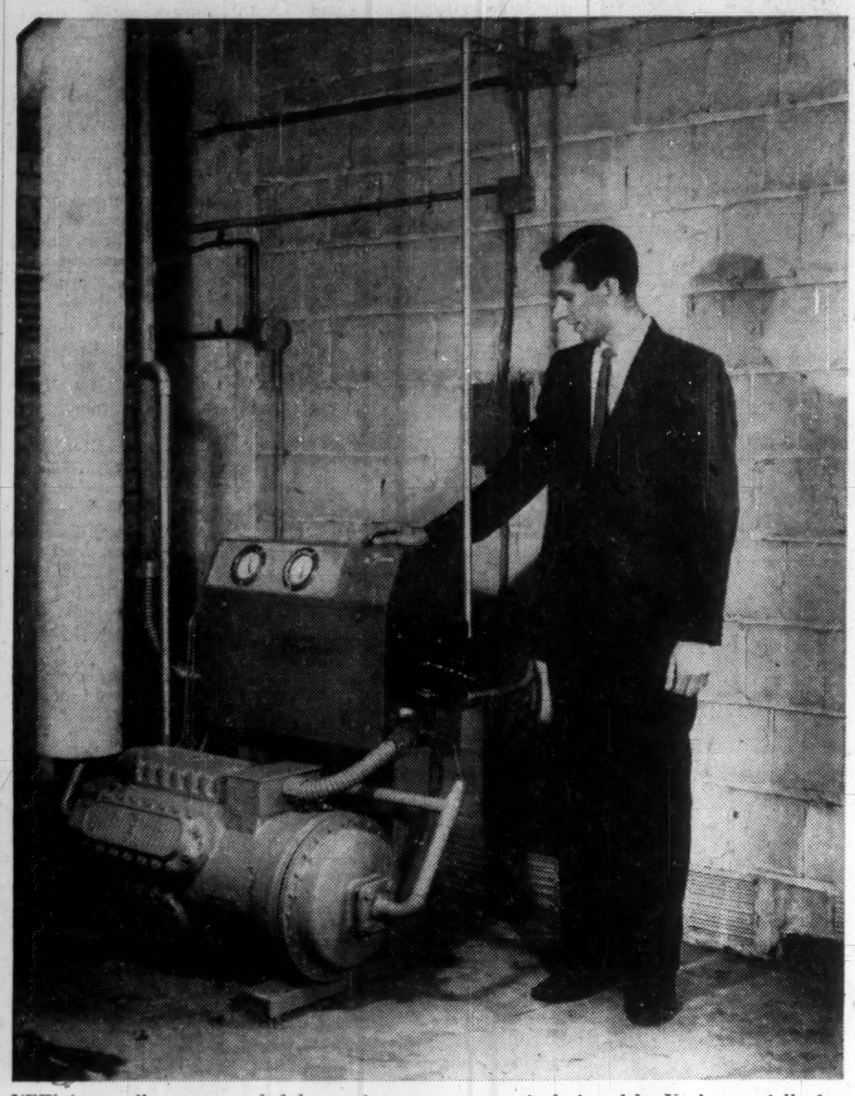
YORK LITHIUM BROMIDE ABSORPTION SYSTEM
Cools With Steam or Hot Water

This unique system uses existing steam or hot water as power for economical cooling and will cut operating costs up to 25% over ordinary motor-driven compressor systems. No expensive starters or heavy electrical connections are required. Noiseless, vibration-free operation permits installation anywhere from basement to roof. 100 to 740 tons capacity.

For complete information on York Air Conditioning Equipment including hermetic and open reciprocating water cooling systems, contact

CANADIAN ICE MACHINE COMPANY LIMITED
Sole Canadian Distributor
Head Office and Plant: 65 Villiers St., Toronto
Halifax ● St. John's ● Montreal ● Ottawa ● London ● Windsor ● Winnipeg
Regina ● Saskatoon ● Calgary ● Edmonton ● Vancouver

REFRIGERATION · AIR CONDITIONING · Cimco · FOR OVER 47 YEARS



NEW internally compounded hermetic compressor unit designed by York especially for ice cream and frozen food storage rooms, large supermarkets, frozen food processing plants.

Color Lab
A New Challenge

The demands on refrigeration and air conditioning are varied and often exacting.

This is true of the industrial field where processes must be carried out under strictly controlled conditions.

Air conditioning is used in photo processing, in lithography plants, in pharmaceutical manufacturing industry, in electronics, in the generation rooms of steel firms.

These are just some of the business fields where air conditioning is a must for the processes involved or for the comfort of employees working under the particular conditions.

A relatively new field is in color photo processing.

Some three years ago, this field opened wide when the patent rights on processing altered to permit independents to handle color work.

It meant that color films could be developed and printed in local plants, rather than shipped to central U. S. plant.

The change corresponded with a big boom in the photo field generally — growth that is still making big strides.

A number of color photo plants have been put into operation in Canada.

Where does air conditioning fit in?

The big problem in color work is the tremendous heat given off by printers and drying equipment, and also by moisture placed in the air from open tanks.

"Several printers in a confined space give off a great deal of heat," points out C. E. Bell of **Beaver Engineering** which has handled such jobs.

Unlike black and white photography, color work involves a turn-on of the 1,500-watt printer lights three times as against once.

Also, the drums for drying give off heat — two of them are capable of heating an average house.

The air conditioning firm must study the process thoroughly to determine the air conditioning requirements.

The drums, for example, are not used at all times. This causes variations in the load.

When they are off, the load drops to one-third of what it is when they are operating.

The requirements are determined on an individual area basis throughout the plant.

Control of humidity is also vital to color photo process. Temperature is maintained at a plus or minus 2 deg. basis, and humidity at 2% either way.

Besides the effect on employees, lack of control of temperature and humidity affects the quality of the work being done.

It will cause paper to curl, a serious problem in handling. It also produces "off color" results.

The air conditioning requirements of these plants are practically on a 24 hr. per day basis, all year-round. Many work at least two shifts.

Booming activity in school class pictures, in Santa photos at Christmas time, add to the normally high level of activity in this business.

In one plant, there is a complete air change made every 3 min. in one 1,000-ft. area. A 3-min. change is required in many rooms housing the photo printers but other sections of the plant vary.

Normal change of air in an average office building might be every 10 min.

Filtering is also a problem in the photo field, particularly if a plant is located in a section of the city where pollution of air is heavy.

Filters are often changed twice as often as in an average building.

The J. H. Ashdown Hardware Co., Ltd.
REFRIGERATION AND AIR CONDITIONING CONTRACTORS & ENGINEERS
- Frigidaire Refrigeration
- Carrier Air Conditioning
- Hussmann Food Store Equipment

179 Bannatyne Ave., Winnipeg, Manitoba

Serving the Air Conditioning and Refrigeration Industry Through

PROFESSIONAL ENGINEERING SERVICES

and

Electrical Installation and Construction

A Trained, Experienced Staff and Modern Plant Facilities Are Available to Industry in Engineering and Installation for New Buildings and Renovation of Present Plant and Equipment.

Specialists In

Electrical Contracting and Construction • Air Conditioning
Refrigeration • Electrical Installations • Motor Rewinding
• Professional Engineering Services

BLENKHORN AND SAWLE LIMITED

St. Catharines, Ontario—Grantham Avenue Telephone Mutual 2-8351

New Products

IN SPRING OF THIS year, **Carrier** will introduce first models of an automatic air purifier in 1,200 and 2,000 CFM sizes, with built-in automatic humidifier.

A fluid with low evaporating rate, non-poisonous, non-inflammable will be used. It is said to absorb odors well at normal temperatures and gives them up freely when temperature is raised slightly.

* * *

BLOW-THRU TYPE evaporative condenser announced by **Worthington Corp.**

There are exterior-mounted forced-draft fans. Designed for dry-fan operation, is claimed maintenance is reduced and service life of fan housings, wheels, shaft and bearings is prolonged.

Structural members can be dismantled and re-assembled for cramped installation spaces.

* * *

PROTECTION FOR MOTORS of centrifugal refrigeration compressors from overload on "start-up" is provided by the new **Johnson** R-26 Load Limiting Relay. It is designed for pneumatic control system and may be used with all makes of compressors.

The new relay is a limit device which is connected in the control line to the suction damper operator and limits the output capacity of the compressor to the full load motor ampere rating. Most centrifugal compressors have a tendency to deliver more than 100% of their rated capacity after overnight or prolonged shutdown or under certain conditions when the cooling load on the building is greater than the refrigeration capacity. It is during these times of overload risk that serious damage to the motor is prevented through use of the R-26 Load Limiting Relay.

The R-26 can be adjusted for any current value between three and seven amperes. Since it is used with motors having many times this ampere rating, a current transformer is used to provide a current within these limits. With the proper transformer, the Load Limiting Relay can be used to control compressor motors of any size.

* * *

DOLE REFRIGERATING CO., announces Over-the-Road refrigeration system, powered by a generator mounted on the truck engine this system offers many advantages in economy, dependability of operation, and simplicity in maintenance.

It has been developed with the idea in mind of utilizing the advantages of the hermetic condensing unit and the AC electric motor.

This is accomplished by use of the Dole Lektro-Cel generator mounted on the truck engine and supplying electric power not only to the condensing unit but also to other devices mounted on the truck utilizing AC current such as blower coil fans or even heaters as are sometimes required to prevent milk from freezing in northern winters.

Pumps on bulk milk pick-up tankers can be supplied with power in a like manner.

All units are suitable for night-time plug-in.

Where frequent stops or idling periods are encountered, light Cold-Cel holdover plates are recommended. These can be supplied for either high or low temperature.

* * *

THE NEW SERIES of "Space Savers" in blower freezers and unit coolers designed and built by **Canadian Ice Machine Co.,** Toronto, has features in economy of space, dependability and performance.

While "SpaceSavers" have particular design application for meat packing plants (hung between meat rails), dairies, and breweries, there is a wider scope for profitable application in many other industries.

Standard units of the new "SpaceSaver" are made in four series: Series 10 for packaging rooms, Series 15 for general storage, Series 27 for chilling rooms, and Series 27F for freezer rooms.

They are ceiling hung, making a considerable saving in space.

Baffles on each side of the unit make it possible to adjust the air throw, to get the most desirable air distribution.

* * *

FOR SOME TIME, difficulty has been experienced in the field when a compress or an air-cooled installation has had to start up against abnormally high head pressure brought on by the air-cooled condenser being subject to the direct rays of the sun during an off-cycle.

Carrier electrical engineers have devised a circuit and will offer for sale a small package that will delay the compressor starting for 15 seconds after the condenser fan has started. This fully automatic device will also prevent the compressor from short-cycling by incorporating a five minute time delay between tries. You will be able to think of many other uses as well for this device, such as to prevent short cycling on cap tube jobs.

There will be also available a new method of air-cooled condenser capacity control that is simple, relatively inexpensive, and providing full modulating characteristics. It can be applied to any system old or new and is better than any patented systems now offered.

The method consists of an insulated single outlet receiver of volume equal to or slightly less than the volume of the air cooled condenser tubes. The receiver has some resistance heating which may be controlled by a pressure switch responsive to head pressure. The receiver is filled with refrigerant which may be all or partly discharged into the main system, thereby filling up the condenser so the condensing surface matches the compressor capacity exactly.

* * *

SELF-CONTAINED double contact food freezer has been added to **Dole Refrigerating Co.** line.

This freezer has six stations, each station having a net freezing area 27 in. deep by 35 in. wide.

The plates of the freezing stations are zinc finished, using square tubes for maximum prime surface contact.

Insulated with Styrofoam panels, the freezing section is finished inside and out with an attractive, sanitary and scuff-resistant Vinyl finish. The balance of the cabinet is finished in stainless steel.

* * *

NEW INTERNALLY compounded hermetic compressor units by **York** of from ¾ through 17 tons, and of —70 deg. to 0 deg. evaporator temperature with refrigerant Freon 22 have been announced by **Canadian Ice Machine Co.**

These units are specially designed for ice cream and frozen food storage rooms, large supermarkets, frozen food processing, low temperature test chambers, low temperature dehydration equipment, gas separation and liquefaction processes, packaged freezer equipment, and brine cooling for dairy, drug, chemical, and petrochemical industries.

REFRIGERATION AND DISPLAY

Until the 1900s, merchandisers had not combined refrigeration methods with display of goods. The ice and salt cooled case was the first effort made in this direction in early part of this century. This allowed merchants to cut meats in advance and display them to shoppers.

FORECAST:
year-round working comfort in this modern structure,
thanks to air-conditioning and heating by

Hamilton's new City Hall, will always be one of the most outstanding civic buildings in Canada.

Modern in outside appearance, but even more important, *modern* in *interior comfort!* "Climate-controlled" throughout by TRANE, for utmost working comfort and efficiency, 365 days a year.

New, striking structures such as this are constantly shooting up in Canadian cities. For them, the sound economy of air-conditioning by TRANE has its start on the drawing boards of modern-minded architects and engineers.

You'd be wise to let TRANE "Climate-control" your next structure!

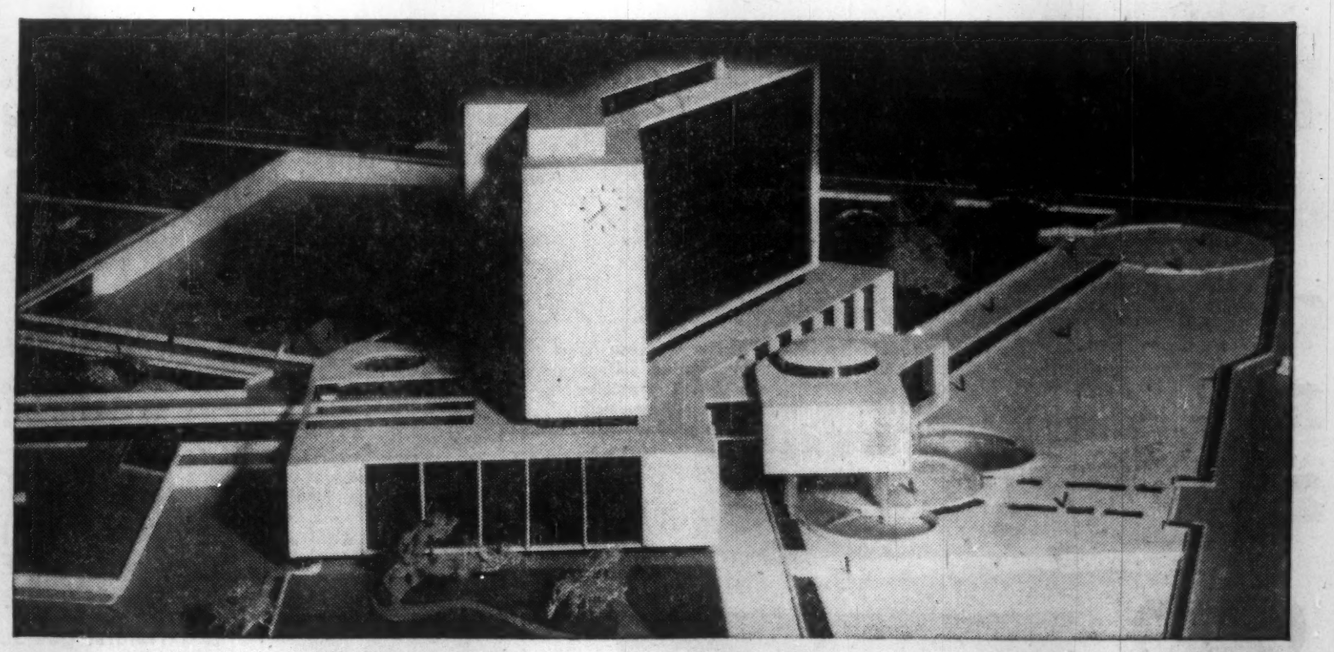
Modern TRANE equipment in Hamilton's new City Hall:

Fans *CenTraVac* *Climate Changer*
Coil *Induction UniTrane* *Torrivent*

TRANE

COMPANY OF CANADA LIMITED, TORONTO 14

Manufacturers of equipment for air conditioning, heating and ventilating



FUTURISTIC NEW CITY HALL, HAMILTON, ONTARIO
Architect: S. M. Roscoe, Hamilton
Consulting Architect: Fleury, Arthur & Barclay, Toronto
Consulting Mechanical Engineer: L. H. Schwindt Co. Ltd., Hamilton
Associate Consulting Engineer: C. S. Leopold Engineers Inc., Philadelphia
Mechanical Contractor: Goodram Brothers Ltd., Hamilton

TPJ-30-2AR

Air Conditioning

FROM

TEN-UNIT MOTELS

TO

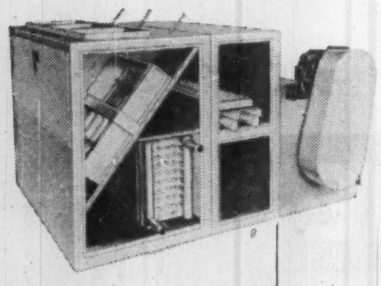
MULTI-STOREY BUILDINGS

THERE IS ... A **DUNHAM-BUSH-BRUNNER**

UNIT TO FIT THE NEED

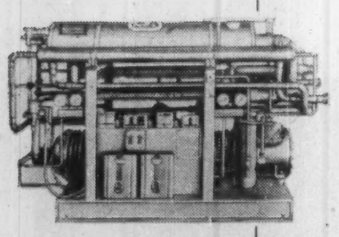
THE DUNHAM-BUSH UNDER-WINDOW UNIT, illustrated above, is ideal for existing, as well as new, buildings. It uses hot water or steam for heating; cold water for cooling. Three-speed fan control gives individual selection for air circulation.

Outstanding among the many Dunham-Bush-Brunner products are:-



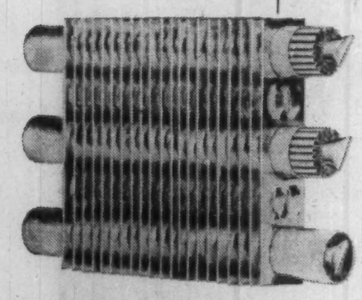
DUNHAM-BUSH MULTIZONE UNITS

provide individually controlled air-conditioning for various zones from one unit; raise or lower temperatures; increase or decrease humidity. Easy installation, life-long operation, 9 sizes. Capacities 2,500-28,000 C.F.M.



BRUNNER-HEAT-X PACKAGE CHILLERS

assure years of continuous, satisfactory operation. They are specially designed for chilled water air conditioning systems, and process cooling. Small and compact, P.C. units possess very high ratings because of their Inner-Fin Coil construction. Completely self-contained, they come factory wired, ready for installation. Capacities 2-100 tons.



DUNHAM-BUSH COILS

The exclusive Inner-Fin construction of Dunham-Bush Coils provides greater surface area in contact with refrigerant. This enables heat transfer equipment to be made extremely compact . . . of prime importance with today's architectural trends.

heat-x

BRUNNER

DUNHAM-BUSH

5915A

140 WENDELL AVE., WESTON, ONT.

Branches Coast to Coast

AIR CONDITIONING, REFRIGERATION, HEATING PRODUCTS AND ACCESSORIES

REFRIGERATION and display are combined effectively in modern merchandising. This installation shows adjustable-shelf, dairy sales cases. Top shelf is not refrigerated, is used for related impulse items.

Food Stores

Planned Refrigeration

Supermarket and food store planning—once a simple, uncomplicated procedure — has evolved over the years into a highly complex operation.

The scientific approach is required to meet today's merchandising problems.

One of the organizations offering assistance in this now important field it **Tyler Refrigeration Corp.** which recently formed a new manufacturing subsidiary — **Canadian Tyler Refrigeration Ltd.** — at Tilbury, Ont.

Here's how Tyler works with retailers in store planning—putting into effect the new thinking and ideas of modern merchandising.

Store planning begins with the four walls of the building, followed by store operator working in close co-operation with company distributor and the Tyler store planning department.

While there are certain basic principles to be considered in laying out a store, there are no hard and fast rules.

Store planning is open to the wide avenues of ideas and imagination resulting from previous experience, and performance of thousands of stores throughout Canada and the U. S.

Store planning procedure:

The Tyler store planning department analyzes data of the individual store, makes recommendations and suggestions based on Tyler's nation-wide field reports and latest merchandising methods.

Data are incorporated into a comprehensive layout set up with three-dimensional scale models of the equipment, which is then photographed and submitted to the operator, by the Tyler distributor, for further analysis.

After the layout has been approved, comes the blueprint of the floor layout showing all of the equipment in exact position, followed by engineering drawings which indicate the location of the trenches, refrigerant lines, electrical connections, etc., for the architect's use.

Factors affecting store planning:

Regional differences must be strongly considered to ensure a successful, profitable plan.

What may be an excellent plan in Toronto wouldn't necessarily be a good one in Vancouver.

For example, supermarkets in one area will strongly stress produce merchandising, and therefore demand longer runs of produce sales-cases.

In another region, one is apt to see a far greater number of service meat cases due to consumer demand for a wider choice of meat qualities.

While in still another, specialty foods get a big play with increased offering of delicatessen items, rotisseried meats, live lobsters and the like.

Shopper services and conveniences:

Intensified competition for the consumer dollar has stimulated a trend to more services and conveniences to attract new customers, to hold regular customers.

Recent developments along this line include addition of courtesy counters; premium counters where trading stamps are cashed right in the store; kiddy corrals; snack bars. The latest entry is public rest rooms.

New items, new departments:

The onslaught of new items continues unabated. The upsurge in frozen foods, new food items, nonfoods, health and beauty aids, has resulted in a tremendous squeeze on floor space — representing a serious challenge not only to the store planner, but to manufacturer of refrigerated equipment.

Increase in new items among perishables has also meant an increase in the amount of refrigerated equipment required, further shrinking floor space, and bringing about a reduction in the footage of grocery shelving which can be accommodated within the confines of the sales area.

Tyler tackled the problem with new equipment designed to take advantage of air space, while simultaneously reducing lineal footage of sales-cases.

This was accomplished with the introduction of cases and coolers which utilize the principle of **vertical** display enabling far greater capacity in less floor space, plus the advantage of tremendously improved customer accessibility to the merchandise.

Result? An impressive jump in volume, faster rate of turnover, increased sale velocity per square foot of sales area.

Equipment installation is an integral part of store planning, despite the long-standing tendency on the part of many, to place it in a category completely apart.

But, as store planning has increased in its complexity, so have the demands upon refrigeration efficiency.

Proper installation of the equipment, therefore, is vital if the store operator is to be assured of a successful and profitable store plan, working at maximum efficiency in every detail.

However, because of the maze of strictly technical aspects involved in refrigeration installation, the operator cannot be expected to cope with this phase of store planning. He must, instead, depend on the expert knowledge and wide experience of refrigeration firms to provide a truly professional installation at the lowest possible cost.

What's the outlook for new developments in supermarket retailing?

The Tyler firm has conceived a "supermarket of tomorrow" based on definite mechanical inventions and new arrangements for which patents have been applied.

These improvements are designed to accomplish two things.

One, increase the general, over-all efficiency of the store operation.

The other, to make shopping faster, easier, more relaxed for the consumer.

Increased store efficiency would be reflected through lower operating costs, which in turn would result in improved services and better values for the shopping public.

The "supermarket of tomorrow" will offer shoppers many new advantages. For example, customers will no longer be forced to contend with nerve-wracking shopping interruptions in the aisles.

Aisles will be free of clutter, hand-trucks, stock boys loading empty shelves and refrigerated cases.

Stocking of display cases will be unseen and completed without interference with the customer — as a steady, semiautomatic flow of merchandise and processing and pricing activities are completed on another floor.

At the same time, irritating "stockouts" or temporary shortages of items will become a thing of the past.

Merchandise display arrangements in today's supermarkets are generally horizontal—and limited in height to the reach (accessibility) of the average customer.

But in new way, displays will become more vertical, and space above present levels will be utilized to full advantage, with the result that supermarkets will become more compact.

At the same time, customers will enjoy an even greater selection of food items in smaller floor space.

That means consumers will take fewer steps, require less time to complete their shopping tours.

Space saved by the operator will be devoted to more service facilities for added customer convenience and relaxation — with new lounges, snack-bars, kiddy corrals.

Departments will be easier to locate; merchandise better organized and displayed than ever before. It will be easier to shop, easier to find what you want in a hurry.

There will be less confusion, less noise and fewer traffic jams at vital points. And checkout will be vastly accelerated.

Perishables, such as meats, dairy products, fruits and vegetables will be more readily available — fresher and in better condition than ever before.

This will be brought about partly by improved refrigeration; partly by faster, more direct flow of merchandise from the receiving room to the customer; and partly by 100% controlled stock rotation, "first-in, first-out."

Milner Building Edmonton

IN ALBERTA - NATURAL GAS IS USED AS THE FUEL SOURCE IN MANY AIR CONDITIONED BUILDINGS. THIS BECAUSE IT IS ECONOMICAL, DEPENDABLE - AND, NATURAL GAS AIR COOLING UNITS REQUIRE A MINIMUM AMOUNT OF MAINTENANCE!

BUILDING IN ALBERTA?
CHECK THE ADVANTAGES OF COMPLETE AIR CONDITIONING USING ALBERTA NATURAL GAS!

Natural Gas Supplied With Service By:

NATURAL GAS SERVICE

CANADIAN WESTERN NATURAL GAS COMPANY LIMITED
Head Office: Calgary

NORTHWESTERN UTILITIES, LIMITED
Head Office: Edmonton

A Room To Clear The Air

Modern refrigerants turn up in the most interesting places — the House of Commons, for example.

Concealed inside the masonry and behind austere festoon trim of dark oak paneling in Room 301 are three air-conditioning units which are linked to a self-contained refrigeration system.

Room 301 is the office of Prime Minister Diefenbaker. It is a square office on the southwest corner of the third floor of the Parliament building. It has six large windows, flanked by heavy drapes.

Air conditioning has made it a comfortable place to think and work.

For many years the door to Room 301 bore a large metal plate with the inscription "Office of the Leader of His (or later, Her) Majesty's Loyal Opposition".

Names of those who tenanted Room 301 reads like Canadian history. W. L. Mackenzie King, Arthur Meighen, R. B. Bennett, Peter Heenan, John Bracken, George Drew and John Diefenbaker.

After the last change of government, it continued to be the office of Mr. Diefenbaker. The door, of course, has a new label.

DARK OAK in Prime Minister's office at Ottawa conceals modern air conditioning system which supplies heating, cooling and air distribution through three units.

The new prime minister decided not to join in the shuffle of offices. He liked Room 301 which he had occupied as Leader of the Opposition. The air-conditioning — installed by **Canadian Ice Machine Co.** — worked well.

This air conditioning system supplies heating, cooling and variable air distribution through the three units concealed behind the grilles and oak paneling of the three west-side windows.

A small false panel conceals the operational control and fan switch. All that can be seen of the air conditioning unit is a tiny thermostat.

Likewise concealed inside the walls are pipes leading to the basement where the most essential and complex part of the equipment is installed.

This includes a chilled water refrigeration system which uses Freon 12 fluorinated hydrocarbons — and is powered by a 3 hp motor.

The particular Freon variety is one of a family of modern refrigerants which today are used in elaborate industrial installations as well as in the humble domestic refrigerator.

Also attached to the system is a steam converter which provides hot water.

How Much You Pay For 'Air'

It's good business to install air conditioning.

But how do you buy it? What are the economics? What do you get for any given expenditure?

An air-conditioning system should perform several different functions to produce controlled climate, the end result.

Among these functions:

- **Control of humidity** of the air by increasing or decreasing moisture.
- **Temperature is controlled by heating** or cooling the air.
- **Purifying the air.**
- **Motion of air is** controlled.
- **Operation of the system** should be quiet.

Potential customers, looking over quoted prices, will find a wide range of figures.

But as in anything else, the lowest-priced is not necessarily the cheapest.

For one thing, engineers point out, the initial cost of a system is not the true cost.

"It is not the original cost but the subsequent operating figures which should govern," one consulting engineer says.

To a large extent, the best kind of system will depend on many factors:

Requirements and costs vary between existing buildings and new ones being built, between the physical characteristics of different buildings. And the purpose of the system will bear on the choice.

Some types of air-conditioning equipment are for limited range of use.

In this category are self-contained, room air conditioners for cooling one room.

For bigger spaces, there are self-contained package conditioners.

Central air conditioning, on the other hand, is an integrated system aimed at providing climate control the year around.

In recent years — with the swift, steady growth of the air-conditioning industry — more experienced personnel is available to counsel the building owner in fitting a system to his building.

And the building owner should obtain this professional counsel, seeking out consultants or the staff of experienced organizations in the field.

Generally, costs of air conditioning may range from below $2 per sq. ft. to around $6.

Engineers say that the $2 range will usually provide cooling only of open spaces with temperature control. In roughly the same class, but sometimes slightly more expensive, is conditioning that

(Continued on page 48)

Construction

Refrigerated Earth

A new technique in Canadian construction practice made its debut in a completed Montreal job recently.

Refrigerants were used to freeze a subsurface area and permit work to continue without danger of subsidence.

The method was used in removal of a 140-ft. length of centre supporting wall and two roof arches inside the **CNR**'s Central Station end of Mount Royal rail tunnel. A single reinforced concrete arch was erected in their place and 1,800 ft. of track were rearranged.

Soil stabilization by mechanical refrigeration is economical and in this particular job offered substantial technical advantages.

There was insufficient working space between the tunnel roof and street level for large-scale excavation from the surface, without endangering the foundations of adjacent buildings.

The work on the tunnel was a preliminary to a start on this part of the Place Ville Marie project, a commercial and office building development in the heart of the city with a 42-story building as its main piece.

Eventually, the whole area above the tracks, fanning out from the tunnel mouth to the station platforms, will be "roofed in".

Cores taken initially from test holes in the excavation area under McGill College Ave. revealed unstable soil often described in non-technical parlance as "quicksand".

The subsoil consists of clay, extending from just below pavement to a depth of eight to 10 ft. and followed by a layer of 8 ft. to 10 ft. of fine saturated silt.

Below the unstable silt, extending another 6 ft. to 7 ft. to solid limestone rock foundation, there is a formation of alluvial till — subsoil left over from the Ice Age.

To solve the problem posed by the variety of shifting soil, D. H. Traynor, project manager of **Foundation Co. of Canada** and R. O. Stewart, the CNR consulting engineer on this project, chose an entirely new approach.

Refrigeration specialists, **J. & E. Hall Ltd.** of Montreal, were consulted and the decision was taken to freeze the ground and keep it solid while work on the tunnel proceeded last winter and spring.

This is said to be the first use in Canada of mechanical refrigeration in civil engineering construction.

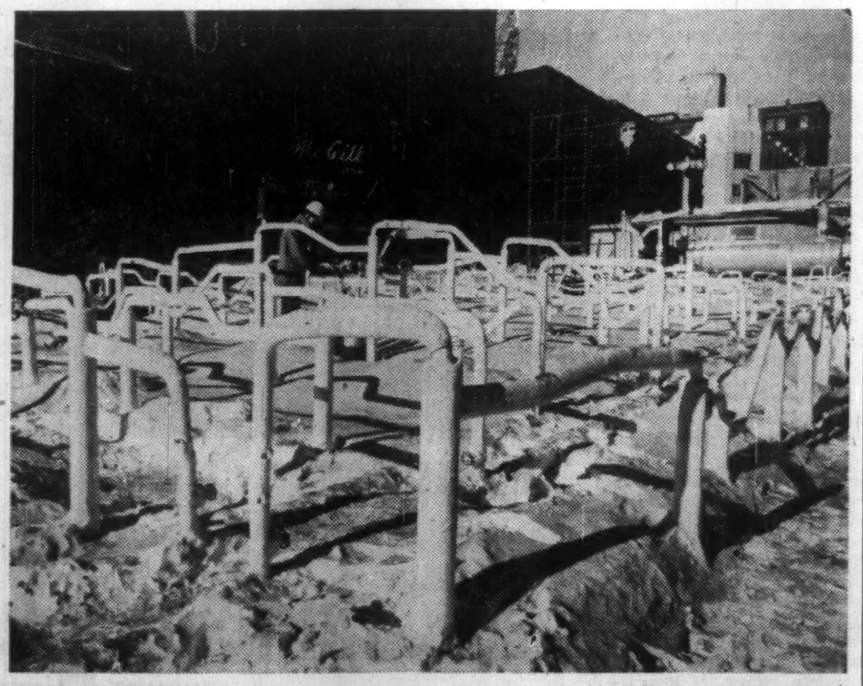
The method had previously been used to stabilize soil in deep-shaft mining through heavy overburden. It also has been applied in a similar fashion in salt-mining operations in the Windsor, Ont., area.

In an area measuring 80 ft. by 50 ft.; comprising some 80,000 cu. ft. of unstable soil below street level, the Foundation Co. installed an intricate system of interconnected pipes. The vertical units — double-walled steel pipes with an outside diameter of 2½ in. and a 1-in. inside diameter — were fed by horizontal header pipes which had been placed around the perimeter of the area.

The pipes, approximately 170 in number, were 17 to 20 ft. long and spaced 4 ft. to 6 ft. apart. The system carried 10 tons of refrigerated methanol solution supplied by two powerful compressors and a heat exchanger unit.

During a three-month period, a carefully worked out system of refrigeration was in operation in this rectangular area, freezing the ground to a depth of 18 to 20 ft., well below frost level.

For four weeks prior to the underground excavation, and for another eight weeks while the actual work on the tunnel proceeded, the methanol flowing through the pipes was cooled by a refrigerant, "Freon 12" fluorinated hydrocarbons, to a temperature of minus 10 deg. F.

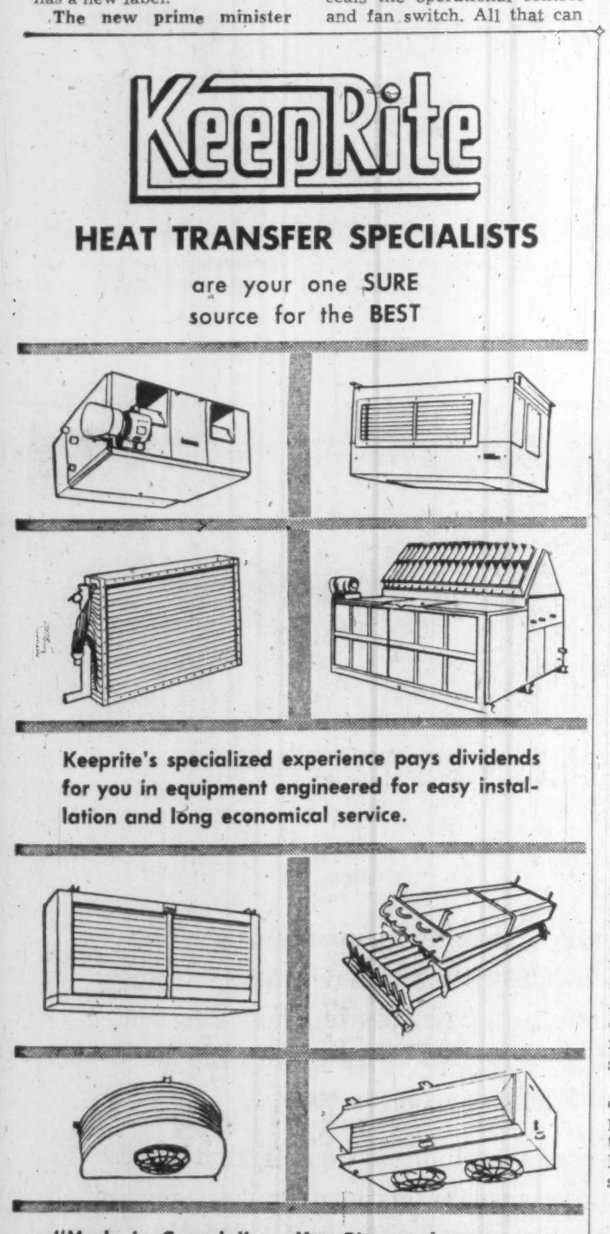


INTER-CONNECTED vertical and horizontal pipes are part of installation used to solidify soil during Montreal CNR construction job. Freezing sub-surface area permitted work to proceed without danger of subsidence.

KeepRite

HEAT TRANSFER SPECIALISTS

are your one SURE source for the BEST



Keeprite's specialized experience pays dividends for you in equipment engineered for easy installation and long economical service.

"Made in Canada" on KeepRite products means

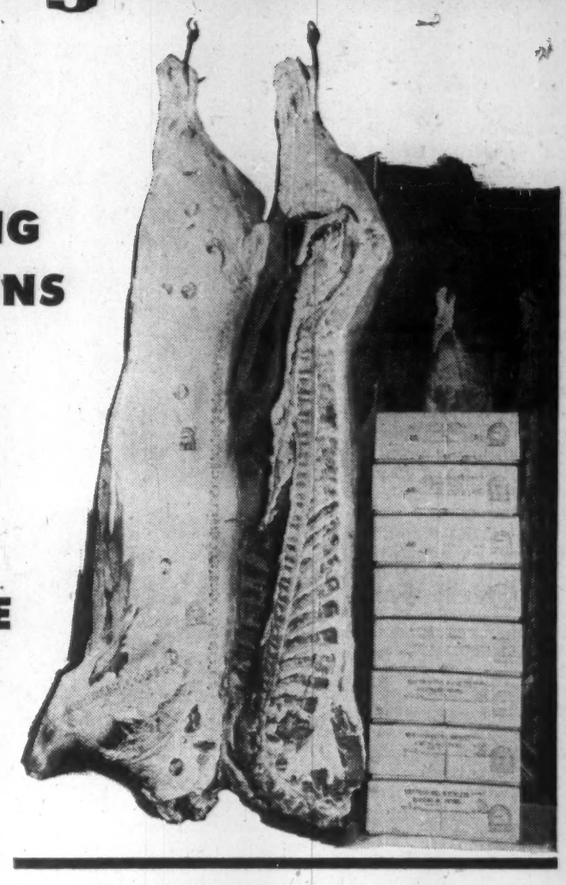
- PERSONAL ATTENTION
- APPLICATION ASSISTANCE
- PROMPT DELIVERY

Whatever your needs in refrigeration and air conditioning equipment, you're always right with KeepRite.

KeepRite PRODUCTS LTD.
Brantford, Canada
A 100% CANADIAN COMPANY

Refrigeration

FROM DRINKING FOUNDATIONS TO FOOD STORAGE PLANTS

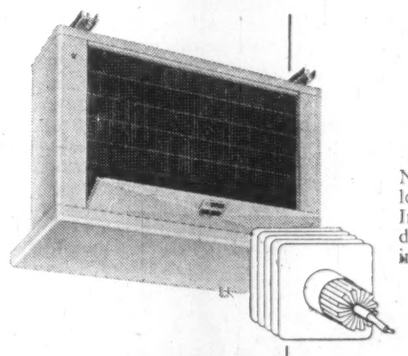


THERE IS A

DUNHAM-BUSH-BRUNNER PRODUCT TO MEET THE NEED

Every day makes new demands upon the refrigeration industry. Dunham-Bush-Brunner research never lets up. Whatever the refrigeration requirement, there is a Dunham-Bush-Brunner product; whatever the problem, there is a Dunham-Bush-Brunner specific answer.

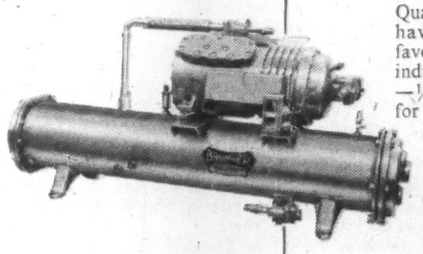
Outstanding among the many Dunham-Bush-Brunner products are:-



DUNHAM-BUSH DEFROST UNIT COOLERS

For Sub-Freezing Produce Storage

No defrost problems with these electric defrost, low temperature units. No waste heat. Exclusive Inner-Fin Coil construction permits units to defrost from the inside. Heater cable inside inner tube provides the heat for defrosting.



BRUNNER CONDENSING UNITS

Quality, top performance and easy field servicing have made Brunner Condensing Units top favorites in the refrigeration and air conditioning industries. They are available in air-cooled units —¼—3 h.p., water-cooled ⅓—100 h.p. and for remote condenser applications, ⅓—100 h.p.

DUNHAM-BUSH-HEAT-X CAST ALUMINUM LIQUID COOLERS

For Bars and Soda Fountains

These are direct expansion coolers of the simplest design. Both refrigerant and liquid circuits are continuous tubing, cast in aluminum. There are no internal moving parts.

heat-x

DUNHAM-BUSH

BRUNNER

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140 WENDELL AVE., WESTON, ONT.
Branches Coast to Coast

AIR CONDITIONING, REFRIGERATION, HEATING PRODUCTS AND ACCESSORIES

Industry's Growth

Predict Best Year Yet for 1960

Growth of refrigeration and air conditioning in 1959 has been continent-wide.

The outlook on both sides of the Canada-U. S. border:

Best year yet for 1960, following record-breaking 1959.

The Air-Conditioning & Refrigeration Institute traces growth trend and looks to future.

Here's a report of George S. Jones, Jr., manager director of the institute:

Industry sources are virtually unanimous in expressing the belief that the comeback made by the industry in 1959, after two years when the sales curve was considerably flatter than in the preceding decade, presages a record-breaking 1960 and continued progress through the '60s.

While all the figures for 1959 are not yet reported and tabulated, the growth trend already shown is enough to convince industry observers that 1959 sales of all products in our field **will run as much as 20% ahead of 1958, and 10% to 15% ahead of the best previous year—1956.**

Manufacturers' shipments of compressors, the heart of any mechanical refrigeration or air-conditioning system, and thus always a good indicator of industry activity, were running about 40% ahead of 1958 for the first three quarters of the year.

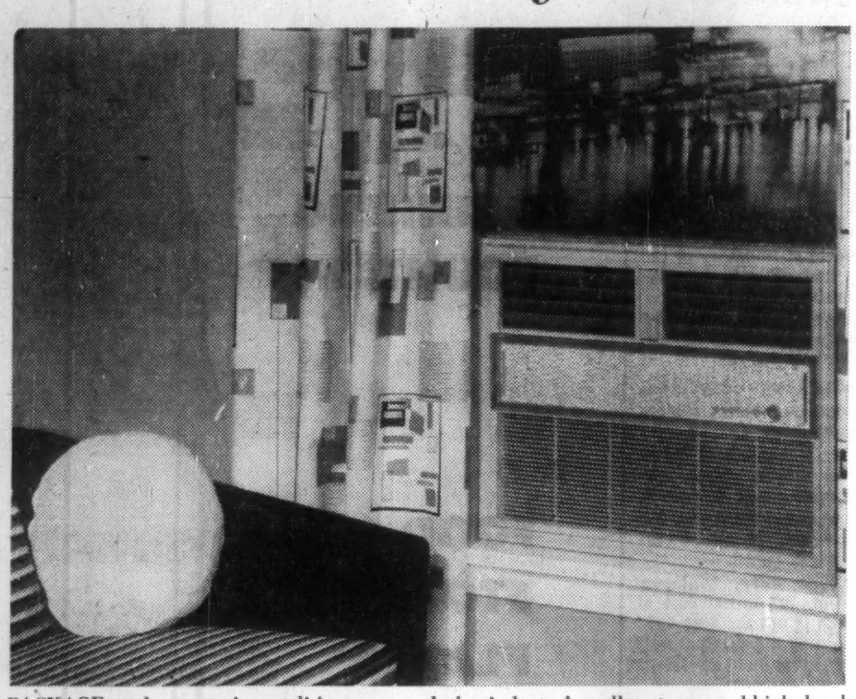
However, we are not forecasting that sales of all end products will reflect the gain to this degree, since manufacturers order these components months ahead of actual production and sale of consumer goods.

At the same time, sales of unitary air-conditioners probably will show almost this large a gain over 1958, based on figures for the first nine months of the year, and a total shipment figure of 320,000 units is being estimated compared with 231,000 in 1958.

"Unitary" equipment includes all central residential installations, and many smaller commercial and industrial ("packaged") applications.

Central residential installations have, over the years, accounted for more than 60% of unitary sales, so, following out the trend, the Institute estimates that some 200,000 U. S. homes have been centrally air-conditioned this year. This is more than double the home installations in 1954, five short years ago.

Interestingly, gains made by the heat pump are even greater than those indicated for unitary cooling equipment over-all. Preliminary figures show that almost 40,000 unitary heat pumps will be shipped by manufacturers in 1959, compared with about 25,000 in 1958, and fewer than 2,000 in 1954.



PACKAGE and room air conditioners paced the industry's gallop to record-high level of business in 1959. Effect of summer heat waves still being felt.

Undoubtedly one of the factors behind the 1959 gains of unitary equipment has been the Unitary Certification Program launched by ARI at the beginning of the year to stabilize and standardize capacity ratings of this type of equipment and thus provide the purchaser with a yardstick in the purchase of home cooling.

About 90% of the manufacturers of unitary air-conditioners are participating in the program, which will be made known even more widely during the coming year as the Institute seeks to give assurance to purchasers and prospective purchasers on what these units will do.

Another has been the growing awareness of builders and the public that non-air-conditioned homes in many sections of the country will be obsolete within 10 years.

Aside from central residential air-conditioning, in which perhaps the most spectacular gains for 1959 will be shown when the final figures are in, the installation of big "systems" for the cooling of office buildings, apartments and hotels, industrial plants, and similar large structures has continued its upward trend in 1959, although perhaps not so sharply as in the smaller units.

Early estimates are that installed value of such systems in 1959 will be more than $600 million, a gain of about 10% from the figure of $550 million in 1958, and almost 60% over the five-years-ago (1954) installed value of $379 million.

These figures represent "equipment in place", rather than the value of manufacturers' shipments, and include cost of installations, ductwork, grilles, and other elements that go to make up the system.

Manufacturers of system components feel that the potential for this type of equipment is great, particularly in the industrial field, pointing out that only about 10 to 15% of U. S. factories are air-conditioned, but that industrial management is coming to recognize more acutely each year the economic benefits of industrial air-conditioning through improved employee health and morale, lower rates of absenteeism, increased efficiency and greater production.

The outlook for continued gains in this field supports the over-all optimistic forecast for 1960 and succeeding years.

Of no small importance in the consideration of air-conditioning systems for large installations such as office buildings is the fact that the General Services Administration of the U. S. government published results of a study during 1959 which showed that efficiency of office workers under controlled conditions of temperature and humidity was at least 9% greater in air-conditioned than in non-air-conditioned spaces.

Another area in which air-conditioning is gaining by leaps and bounds is the automobile-cooling field.

Statistics are not available, but it is known that all major motor manufacturers have stepped up the percentage of their automobiles which are leaving the factory completely air-conditioned (even in the lower-priced models), and the production of units for field installation has shown a similar growth which may be expected to continue and become greater in degree as more and more cars are air-conditioned.

The Society of Automotive Engineers has estimated that by 1962 one in nine cars will be air-conditioned, and 25% of all cars produced within five years will be factory-equipped with air-conditioning.

In the field of commercial and industrial refrigeration, the longer-established phase of mechanical cooling, 1959 has been an excellent year for most of the many products covered in this broad category, and forecasts of increased marketing facilities for foods (75% of which are mechanically cooled at some point along the pipeline from producer and processor to consumer), as well as building outlook and developments in scientific and defence applications, augur well for a further step-up in utilization of refrigerating equipment.

Typical of the forecasts that led manufacturers of refrigeration equipment to look to the future with optimism is the outlook for the frozen food industry.

One spokesman has predicted that **"in the next three to four years, total frozen food production should be between 8.5 and 9 billion lb.,** an increase of 1.5 to 2 billion lb." over production this year.

New equipment will be needed, he pointed out, "particularly for trucks, backroom storage in retail stores, retail cabinets, and, of course, home refrigeration."

Military uses for specialized cooling equipment have shown a great growth over the past four or five years, and as highly-developed electronic processes, weapons systems, test facilities, supersonic aircraft, and nuclear-propelled water craft become an ever greater part of the nation's defence equipment, the essentialty of mechanical refrigeration to their production and operation will become more apparent — and vital.

Test Chambers Important

Environmental test chambers which run the whole gamut of operational and climatic conditions have become important tools in the development of machinery, instruments and materials for today's exacting military and commercial requirements.

In these modern "torture chambers" new products are subjected to punishing treatment and pushed to the limits of endurance under conditions rigidly controlled by highly skilled technicians.

Refrigeration industry provides the means for many of the tests.

From the intense sub-zero cold of high altitudes to the extreme heat or humidity of the tropics, from corroding salt water and fog to the all-pervading desert sand and dust, from the shattering impact of explosions to the wearing-down process of continuous vibration, there are few conditions which cannot be simulated within the four walls of a test laboratory.

Inadequate design, structural weakness, metal fatigue

(Continued on page 49)

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SUPERVISION of CONSTRUCTION

Economics of Air-Conditioning

(CONTINUED FROM P. 47)

offers fresh air control as well as temperature control.

In a higher price category, ranging to around $4 sq. ft., would be a system to cool separate spaces with fresh air and temperature control of each individual space.

Stepping up, there are a number of types of conditioning that offer more than cooling.

- **Cooling, heating of individual spaces** with fresh air and temperature control for each space.
- **Cooling, heating of open spaces** with same type of controls.
- **Cooling of separate spaces but not heating,** offering control of fresh air, temperature, humidity and noise on an individual space basis.

Such installations range in price from under $3 to nearly $5 sq. ft.

The top range installation — going to $6 sq. ft. — should provide cooling and heating of separate areas, and individual control of noise, humidity, fresh air and temperature.

Three factors determine an intelligent choice of air conditioning, says W. H. Harper, **P. Eng.,** president of **Beaver Engineering Co.**

- **Anticipated use. This question applies where limited use is anticipated,** such as in rented quarters with short lease.

But in considering air conditioning, thought should be given to future building renovations and a system installed that would be in keeping with ultimate plans.

- **Physical conditions. These are different in existing buildings but these physical characteristics** will determine the system design and the price.

The architect will make provision for equipment and service in a new building.

But in existing buildings, study must be made of water, drain and power services, their locations, best equipment locations, and ways to avoid lost usable floor space.

Height of a building, shape, orientation, available headroom for ducts and services must be studied to ensure best system for each application.

Often in existing buildings, the condition of the heating system has a decided bearing on the choice of an air-conditioning system.

- **Economics.** Annual owning and operation costs are factors that should influence air-conditioning decisions.

The first cost or purchase price, is directly related to quality and physical conditions.

Quality is a measure of degree of perfection with which system provides good air conditioning.

Between the minimum acceptable and the optimum design, there is a range of prices to reflect the premiums.

Annual owning costs are calculated on basis of depreciating the equipment over the normally expected life.

This amortization amount, with average annual interest on outstanding balance, totals annual owning costs.

To the annual owning costs, add annual operating costs of power, water, maintenance and service, and loss of usable floor space (it varies with the system).

Engineers recognize the attraction of lower-priced systems, that is the original purchase price.

But they argue: A system with a first cost 50% higher than another may still have a lower annual owning and operating expense.

One warning which industry spokesmen give:

Make certain you are dealing with a reputable organization.

In fast-moving growth of recent years, there have been cases of sloppy installation, poor equipment, lack of service. The blame often fell on the air-conditioning industry as a whole and on the air-conditioning idea.

Air conditioning, say engineers, will be as good as the equipment chosen for the job, the quality of installation and the design. And add the service facilities that are ready to support the system once it is installed.

There are more competent consulting engineers in this specialized field in Canada than ever before.

They can design your system, offer counsel and analysis of tenders for a job.

A point to remember in deciding what you want from air conditioning:

The potential of comfort today is much higher than even a few years ago.

Cold and clammy air in summertime was a big improvement in the 1930s. But now, office employees, hotel or restaurant guests expect a great deal more control over humidity and expect proper distribution of air.

There are still public places advertised as "air conditioned" where only a fan is circulating the air.

This clumsy attempt to fool obviously fails. But other less obvious attempts are also open to question.

A building might have several rooms in a row with the last one getting far less than its requirements of warm or cool air.

And there are still restaurants where one set of customers feel draughts and another group wants more cooling.

The starting point — to avoid such inadequate systems — is to know exactly why air conditioning is desirable in the first place. **It is becoming more acceptable and it is becoming a competitive necessity.** But there are concrete reasons for this, and they should be understood before calling in contractors.

Perhaps the major reasons for installation — outside of special industrial applications — are:

- **To attract** and hold customers.
- **To attract** and hold employees.
- **To increase** efficiency — through lowering absenteeism and boosting production.

These basic reasons, of course, vary among office buildings, restaurants, hotels and merchandising outlets.

Many potential customers of air conditioning actually require complete, year-round control of climate.

Most leading firms point out that the percentage of customers who buy such a complete system is surprisingly small in relation to the number who probably need such an installation.

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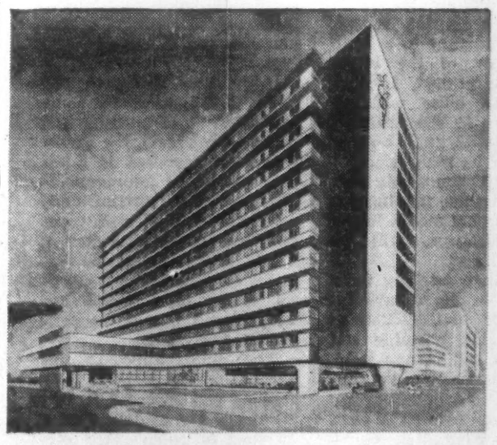
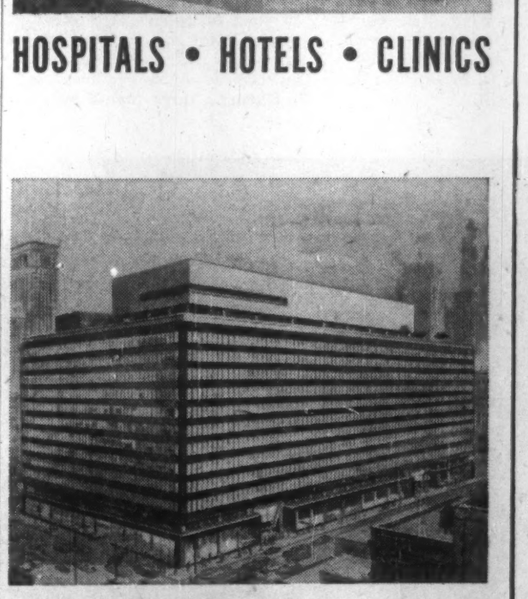
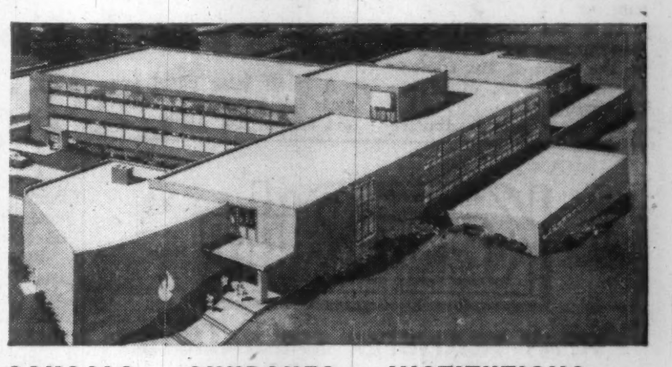
Johnson Pneumatic Temperature Control



HOSPITALS • HOTELS • CLINICS



OFFICES • BANKS • STORES



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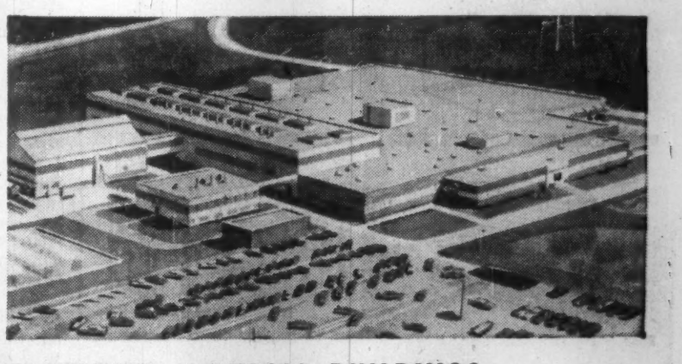

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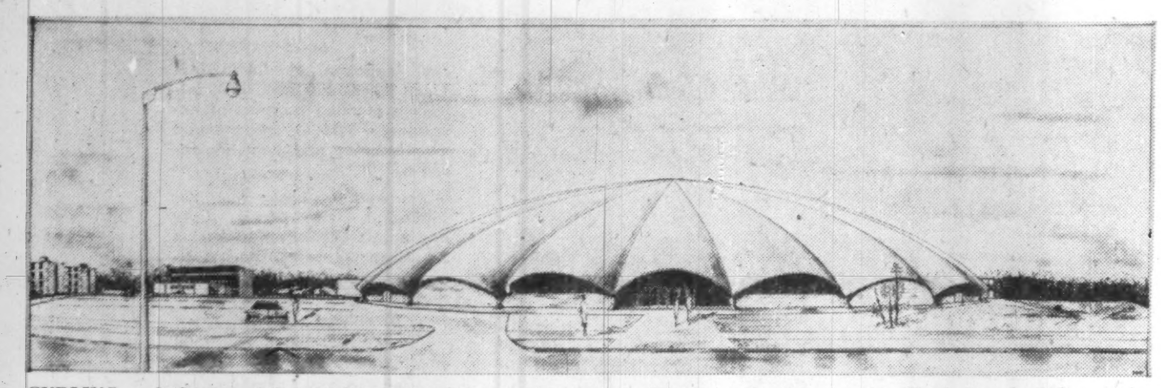

CURLING and skating rinks are big markets for refrigeration. This is a sketch of unusually-designed curling rink in Don Mills, Toronto. Freezing floor pipes, buried in concrete, can be used for cooling air in summer.

Rink Makes Year-Round Recreation

Skating and curling rinks have long been markets for refrigeration equipment and installation.

One of the more interesting projects has been undertaken by **Don Mills Developments Ltd.** at the main Don Mills shopping centre in Metro Toronto.

Its architectural style has attracted attention. The double-arched domed roof — largest wooden dome structure built in Canada — rises 51 ft. above the ice surface at its apex. **It provides a clear 230-ft. dia. surface** inside without an interior column.

Twelve curling sheets are laid on a concrete floor, with 1-in. black iron pipes, space-at 4-in. centres, buried in the concrete.

These freezing floor pipes can be used to cool the air in summer to about 7 ft. above the floor surface — making the building comfortably cool for summer activities.

The refrigeration equipment includes a balanced charged ammonia and brine system with two 50 hp., six-cylinder compressors driven by 50 hp. motors.

Building was designed by **William H. Hall & Associates Ltd.**, architects. General contractor was **R. G. Kirby & Sons** and consulting engineers were **Morrison, Hershfield, Millman & Huggins.** Refrigeration was installed by **Canadian Ice Machine Co.**

Refrigeration

Key to Store Planning

Building a retail food store or remodeling one is a vital step in the scientific approach to modern merchandising.

More and more retailers are turning to refrigeration contractors for assistance in planning.

"Sometimes, it's a case of everything — right down to the completed store ready to open for business," an official of **Hussman Refrigerator Co.,** Brantford, Ont., points out.

That's true particularly of smaller independents who are remodeling or expanding their operations into larger quarters.

One reason for the dependence is the key spot which refrigeration now plays in food retailing.

Leading supermarkets in U.S., for example, report that frozen foods account for 6% to 10% of total gross business.

This has climbed from a fraction of 1% only a few years ago.

Merchandisers look to these foods as key factors in determining the success of their operations, feeling that their percentage of total sales is a true barometer.

Total frozen food sales bear a direct relationship to amount of footage and modernity of cabinet design. New cabinets will generally outdraw older ones.

Space-saving is a key word with refrigeration firms when they tackle planning projects. In some cases, remodeling a store can provide 30% more sales display space without increasing size of the building itself.

Advantages of remodeling to the food retailer:

- **Saving on labor,** through smoother operation generally and the advantage of new equipment and methods.
- **To meet sharper competition** today, remodeling is often imperative.

An out-of-date store invites new competition.

- **Increased sales and profits.**
- **Sometimes a store operator will delay too long,** see customers lost.

Often the reason is obsolescence of equipment.

New developments in merchandising (growth of non-foods, frozen foods, more packaging) all demand latest layouts and equipment if store is to keep pace with the trends.

- **General pep is added** to the operation on remodeling, through better working conditions and employee morale, more pleasant shopping conditions.

One of last year's typical supermarket jobs points up how refrigeration is utilized fully in merchandising.

This was completion of new supermarket for **R. T. Holman Ltd.** in Charlottetown, P.E.I.

Most people are aware of the effect that proper color scheme can produce in their homes.

This same effect is strived for in the new store, planned by interior design specialists, **J. M. Young Associates Co.** of Montreal.

Display fixtures and refrigeration equipment were made by Hussman. Installation was done by W. S. Storey of **Storey Electric Ltd.** of Charlottetown.

In the Holman store, the fresh fruit and vegetable department is on one side wall with adequate facilities for display.

Almost half this fixture is kept under controlled refrigerated temperature to ensure quality and freshness of the product at all times.

Meats are displayed in a self-service counter.

From time meat arrives at the store from packing house, to the time it is displayed in the counter, it is kept under constant controlled refrigerated temperatures.

That ensures the consumer of quality, tenderness and freshness.

The frozen meat fixture is located in the same line-up to handle those meat products which require sub-zero temperature.

Two closed meat cases are provided for personal service to customers.

The meat department stretches across the rear wall of the store.

The dairy requirements are contained in a spacious triple deck refrigerated dairy counter.

Across an aisle from this display are the ice cream and frozen food products, tailored to meet demands of today for convenience foods.

What is the trend in frozen foods for retailers?

Changing patterns can sharply affect the performance of a store.

One indication of what is going on:

A survey of U. S. store engineers recently indicated that, in a hypothetical store, they would allow greater space for display of frozen foods than for meats.

The important point here is that only a short time ago meats commanded the largest space of perishable products, in terms of length of refrigerated display cases.

In Canada, frozen food sales have soared nearly 600% since 1951, to around $115 million a year.

Nine years ago, grocery and combination stores reported less than 1% of sales were accounted for by frozen foods.

Now the average is nearing 4% and it's over that mark in a few metropolitan areas.

The outlook is for still more sharp expansion — as housewives take to convenience foods.

This growth is not all rosy for Canada or for all the refrigeration industry.

The reason: High level of imports.

- **Imports of fruit juice concentrates** have hopped from $567,000 to over $9 million in nine years.
- **Incoming frozen vegetables** were worth less than quarter of million dollars in 1951, now are valued at around $3.3 million yearly.
- **Fruits are valued at over $2.5 million,** up from under $100,000.

This points up the potential at the producer level and also for cold storage - freezing plants in this country.

There is room for growth in speeding up the time from cutting to freezing.

York Farms is a leader in this field, using mobile viners with belt method sharply reducing freezing time.

In the past few years, new trends have developed in frozen foods.

Prepared dinners and pies, fish products, boilable bags and portion packs are among the developments.

Here's what a Montreal restaurant is doing in this field:

It packs such items as beef stews, spaghetti and meat balls, chicken à la king in individual servings at 6 to 8 oz. each.

They are packed in laminated bags that can be both frozen and boiled.

Usually, the food is fully cooked, packed in the bag and frozen. It is kept frozen and unopened until tossed into a boiling pot of water.

Test Chambers Important

(CONTINUED FROM P. 48)

or other shortcomings would not, under normal conditions, become apparent until the new product had been placed in actual service long enough for valid conclusions to be drawn from its performance.

Modern methods, reproducing accelerated environmental conditions within a test chamber, can accurately forecast the success or failure of a newly-developed product in a much shorter space of time.

The accelerated pace of testing minimizes interference with costly production lines and techniques.

Extensive facilities for this type of development work, said to be the first, commercially owned, of their kind in Canada are housed in the laboratory of **Canadian Applied Research** which occupies 4,000 sq. ft. of floor space in East York Township, near Toronto.

PHOTO: MAX FLEET

a building is the face a company turns to its public;
it deserves the attention of a skilled professional—an
ARCHITECT

the architect is indispensable to good building

ONTARIO ASSOCIATION OF ARCHITECTS
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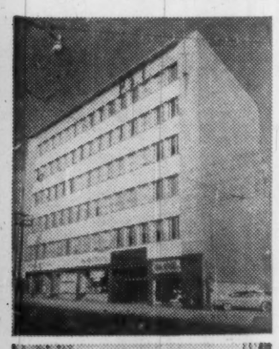
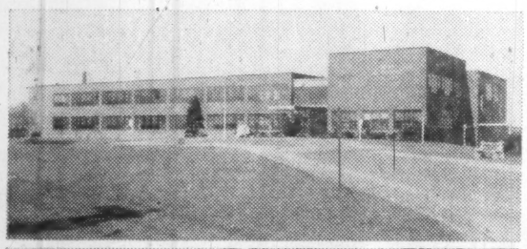
1-60

These are some existing buildings that have been air conditioned by Beaver



TOP: PHYSICIANS SERVICES INCORPORATED 2221 YONGE ST.—TORONTO
CENTRE: PHOENIX HOUSE—350 BAY ST. MATHERS & HALDENBY—ARCHITECTS
BOTTOM: HOLLAND LIFE INSURANCE SOCIETY LTD.—1130 BAY ST.



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Carrier AIR CONDITIONING • REFRIGERATION • DESIGN • INSTALLATION • SERVICE

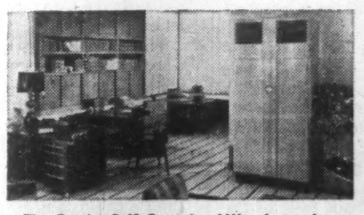
The Imperial Life Tower, in downtown Toronto, is an example of an outstanding business location made even more attractive with Carrier Air Conditioning.

now... existing buildings can have the newest in air conditioning

...the *Carrier* WEATHERMASTER SYSTEM

No longer need an office building be "dated" or less rentable because it lacks air conditioned comfort. The new Carrier Weathermaster System can be quickly incorporated into an existing building with little interference with business routine. Under-the-window Modular Weathermaster units have no "afterthought" look, but fit smoothly into interior design.

...and buildings don't have to be *big* to have year-round air conditioning!



The Carrier Self-Contained Weathermaker either air or water cooled, is exactly right for small offices, shops or restaurants. Smart in appearance, it blends with any background, can be installed without business interruption.

The Carrier Window Unit can be the ideal answer for the individual office. Light in weight, easily installed, it unobtrusively cools, dehumidifies and circulates filtered air for all-year comfort.

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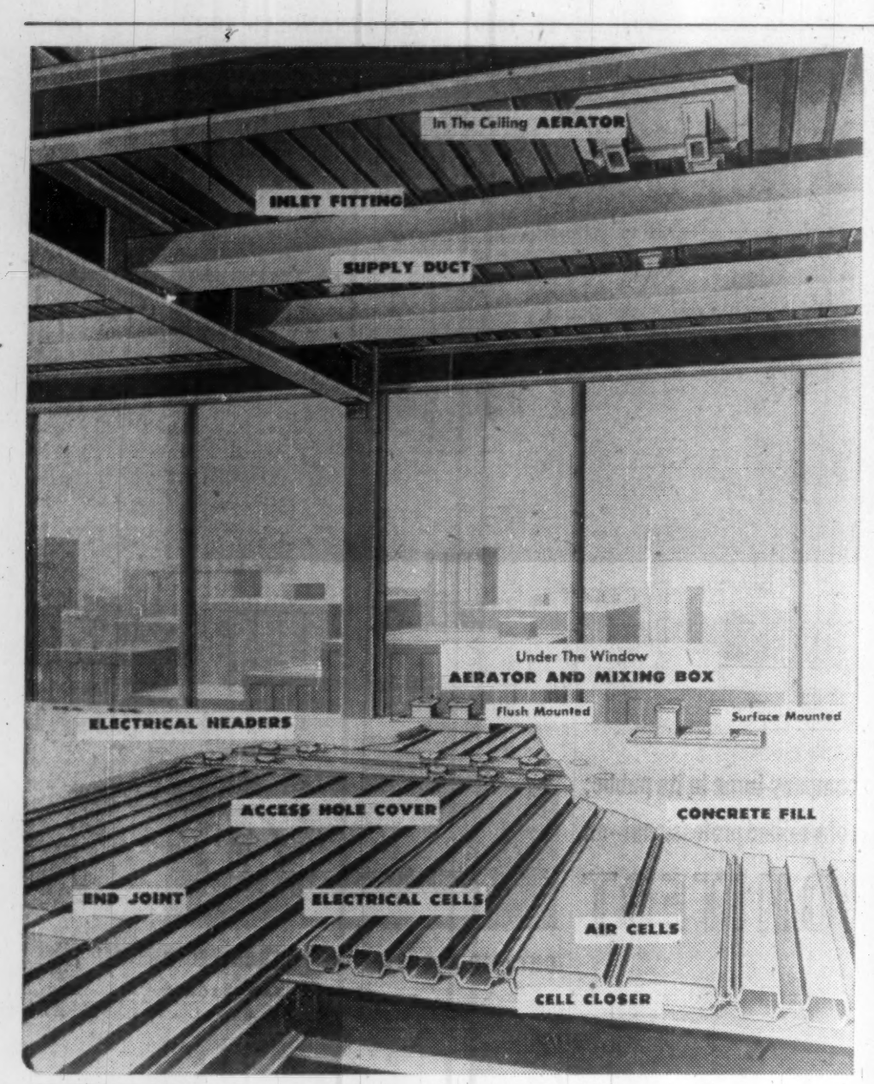


DRAWING SHOWS how new cellular steel sub-flooring is used in construction of office building. Floor cells act as hot and cold air branch ducts, pass over floor beams rather than beneath them.

Q-Air Floor

More Building Space

A new floor distribution system for air conditioning could save substantially on space in new buildings.

"A 20-story, air conditioned office building can now be built in the over-all height required for a conventional 19-story structure of equal ceiling height," Glyn Rees of **Robertson-Irwin Ltd.** says.

The company recently introduced its new cellular steel floor system.

Rees says the system, called Q-Air Floor, makes it possible for designers to provide an air conditioning system without adding the 6 in. to 16 in. between floor and ceiling normally required to house the hot and cold air branch ducts.

The Robertson Q-Air Floor is similar to the company's Q-Floor, a load-bearing steel sub-floor with cellular raceways that house all electrical and communications wiring.

"The difference is that the width of some of the floor cells has been increased to permit their use as branch ducts for the distribution of conditioned air," Rees points out.

In conventional design, space below the floor beam and the top of the suspended ceiling has to be allowed for branch ductwork.

With Q-Air, the ceiling is brought up to the floor beam and the Q-Air cells acting as branch ductwork supplying hot and cold air to the terminal boxes, go directly over the floor beams, not beneath them.

"By utilizing a company development, the 'seasonal changeover', the size of the main supply ducts is reduced to such an extent that it is often possible to pass them through, rather than below, supporting beams.

"This saving in dead space between the ceiling and floor above is the reason why a 20-story Q-Air building can be built in the over-all height required by a conventional 19 - story structure of equal ceiling height."

He explains how this saving in space starts a chain reaction of other important structural savings which can cut initial construction cost 5%.

"For example, by reducing the height of the building, savings are made automatically on structural steel, elevator equipment, stairways, piping, wiring, fireproofing, and wall materials.

"The resulting dead weight reduction from all of these materials can also reflect a real cost-saving in the foundation and footers."

"Another benefit of the Q-Air Floor System," Rees says, "is its substantial effect on BTU requirements."

"BTU requirements of both the heating and cooling of a building are based on the amount of exterior wall area."

"The saving of 6 in. to 16 in. of wall height between floors for the perimeter of the building (and for each story) can easily result in a reduction in BTU's of 4% to 11%.

"This saving is reflected in a decrease in the size and cost of the mechanisal equipment used to condition and deliver the air."

Rees also had good news for the man who pays the building's hydro-electric bill.

"Annual power costs for heating and air conditioning can be reduced by as much as 30%.

"Conventional high velocity dual duct systems circulate a constant volume of air and consume maximum power the year around.

"The volume to be circulated is based upon maximum cooling loads in mid-summer.

"This is extremely wasteful during the winter months, since a building can be effectively heated with considerably less air volume and power than it takes to cool it.

"Q-Air Floor cures this chronic ailment of older systems by the use of a special 'Aerator' terminal box with an exclusive 'seasonal changeover' feature.

"This Aerator — which mixes cool air with hot air and discharges it into the room — makes possible a system tailored for two-level performance: High cubic feet per minute discharge during the warm months when a large volume of cool air is needed, and a reduced CFM discharge during the cold weather when heating requirements call for a lessened volume of air.

"Therefore, instead of circulating a constant peak volume of air throughout the year, the system brings its seasonal changeover feature into play and cuts down the level of supply during the heating season. "This amounts to about 65% of the peak cooling requirements.

"Our tests have proven that, when the blowers are running at 65% of full capacity, the electric power cost can be reduced by as much as 30% annually."

After seven years of research and development, a complete Q-Air Floor-equipped office building has been constructed by and for Robertson to prove the system under actual working conditions.

This building was not only a fully-instrumented "laboratory" for testing all operational characteristics of Q-Air Floor, but also housed executive, engineering and sales personnel.

"Q-Air Floor passed the test with flying colors," Rees says.

Robertson-Irwin is associated with **H. H. Robertson Co.,** who invented cellular steel sub-floors, and were the first to introduce this type of construction in Canada.

The Hamilton, Ont., firm fabricates a wide range of metal building products for commercial, industrial and institutional construction and maintains a force of over 200 erection men across Canada, trained in the installation of the company's products.

Untapped Market For Gas

Canada's fast-expanding gas industry is looking closely at the air-conditioning market potential.

This is virtually an untapped market in this country.

Now exciting new units, specially designed to operate on natural gas, are becoming available at attractive prices.

The first absorption unit, which is a direct gas-fired job, has recently been installed in a Toronto home.

This operates on the same principle as the gas refrigerator.

This unit has been in the development stage for some time and is believed one of the most promising developments in the residential air-conditioning field.

Another commercial type unit that is now moving well in the U.S. and just breaking into the Canadian market operates on steam.

The steam in turn can be created by oil, gas or coal fuel.

Size of these units can be in line with the size of the conditioning job to be done. One is being installed in the big new **Prudential** building going up in downtown Toronto.

Several others are already in operation in the city.

All of these are operating on natural gas.

The importance of this largely undeveloped market to the gas industry is the fact that the heavy demand period comes in summer which is the off-peak season for gas.

This is when gas utilities must seek strenuously to develop new markets.

To encourage gas air-conditioning the utilities are offering special, low rates for both commercial and residential customers.

The Battelle Institute in U.S. recently completed a new air-conditioning unit that can be applied to either commercial or residential business.

This unit is featured by a gas-operated, free-piston motor.

Here the gas is used in much the same way as gasoline is used in an automobile.

The gas powers a mechanical compressor. This unit is expected to be available in volume next year.

The potential in air-conditioning in commercial buildings is thought very large.

Today virtually all new commercial buildings are installing air-conditioning systems. As well many old buildings are being equipped with these systems.

The residential business, however, is expected to grow at a much slower pace. Most home-owners balk at spending more than a few hundred dollars to air-condition a home.

A good air-conditioning job today might cost around $2,000-$3,000. But several of the new gas units promise to reduce this installation cost quite markedly.

One 150 lb. TCA Unit Could Cool 14 Homes

The air conditioning system in one of **Trans-Canada Air Lines'** new Douglas DC-8 Jetliners would comfortably cool 14 good-sized homes.

Yet each of the two separate refrigeration units weighs less than 150 lb., exclusive of controls.

Built by the **Carrier Corp.** of Syracuse, N.Y., for Douglas, they are equivalent to a conventional refrigeration system weighing approximately 5,000 lb.

The compressors in these miniature units weigh only 11 lb. apiece, making up for their tiny size by turning at more than 90,000 revolutions per minute.

The turbine turning the compressor is driven by air from the aircraft's powerful **Rolls-Royce** Conway by-pass jet engines.

Flying at close to 40,000 ft. where the temperature may be 45 deg. below zero on a summer day, cooling rather than heating is, oddly enough, the aircraft engineer's greatest problem.

This is because the Jetliner's cabin is pressurized at 40,000 ft. to the equivalent of 8,000 ft.

The thin, cold air outside is compressed inside the cabin.

This causes speeding molecules to jump about like pent-up animals, gaining in heat what they lack in room to move.

(A scientist would say their kinetic energy had turned to heat.)

As the air emerges from the compressors on its way to the cabin, its temperature is about 235 deg.

Temperature of this air is lowered to about 90 deg. by running it through a series of tubes cooled by the frigid, below-zero outside air.

But with each of up to 127 passengers emitting warmth equal to that of a 100-watt bulb, temperatures inside the cabin would still be over the 100 deg. mark.

And even worse would be the inside temperature when the aircraft was on the ramp or during climb when frigid high altitude air was not available for cooling.

The solution was the Carrier-built air conditioner constructed of light alloys, turning at fantastic speeds and with parts machined to 50 millionths of an inch accuracy, changing the entire cabin air every three minutes.

The first of **TCA's** big **DC-8s** is scheduled to be delivered to the airline late this year.

Six of the aircraft have been ordered for service on trans-continental and trans-Atlantic routes.

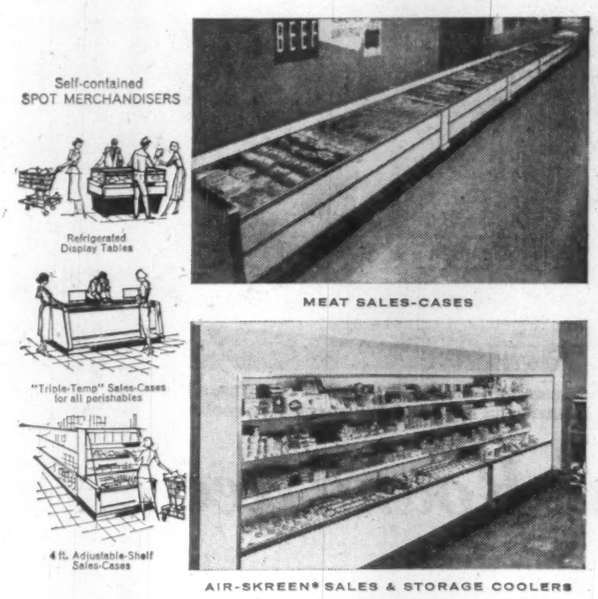
Air conditioning plays a key role in **TCA's** new overhaul and maintenance base in Montreal.

The base will be ready for occupancy early in the spring of 1960. This entirely new base is located at the east side of the airport, in the City of Dorval.

The buildings will cover an area of about 18 acres on an 84-acre site; the reinforced concrete ramps alone covering some 700,000 sq. ft.

These hangars will accommodate the 150-ton 127-pas-

(Continued on page 31)

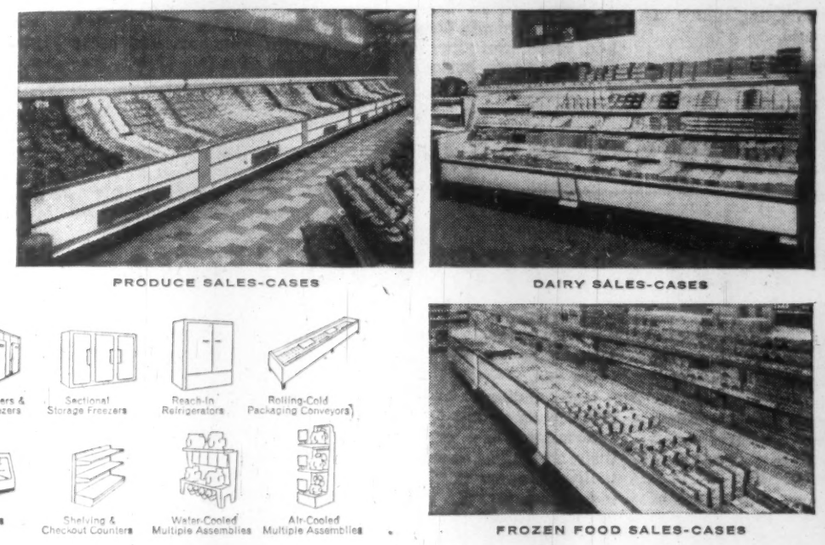


The formation of CANADIAN TYLER REFRIGERATION, LTD. follows a planned program of expanding Tyler's international manufacturing and marketing facilities.

In the past six years, Tyler Refrigeration International, C.A., has established new facilities in Schwelm, Westfalen, West Germany, and has acquired substantial holdings in Frigrite Ltd., of Port Melbourne, Victoria, Australia, an affiliate manufacturer of market equipment.

Through the new Canadian company, Tyler commercial refrigerators are available in a range of models and sizes to meet the needs of supermarkets, food stores, hotels, restaurants, schools, drug stores, institutions, etc.

TYLER gives you more!



*Trademark

TYLER gives you more!

TYLER

World leader in commercial food refrigeration and pioneer of important improvements.

Sales offices: Tyler Refrigerators, 732 Spadina Ave., Toronto, Ont.
Manufacturing plant: Canadian Tyler Refrigeration, Ltd., Tilbury, Ont.

We're 17° cooler and 93% happier now ...with Chrysler Air Conditioning

"Working's a pleasure since they threw out the fans and got us Chrysler Airtemp Air Conditioning. Whether it's 120° above, or 5° below—we've got Spring! That's *real* all-weather operation for you . . . and it's another Chrysler exclusive!"

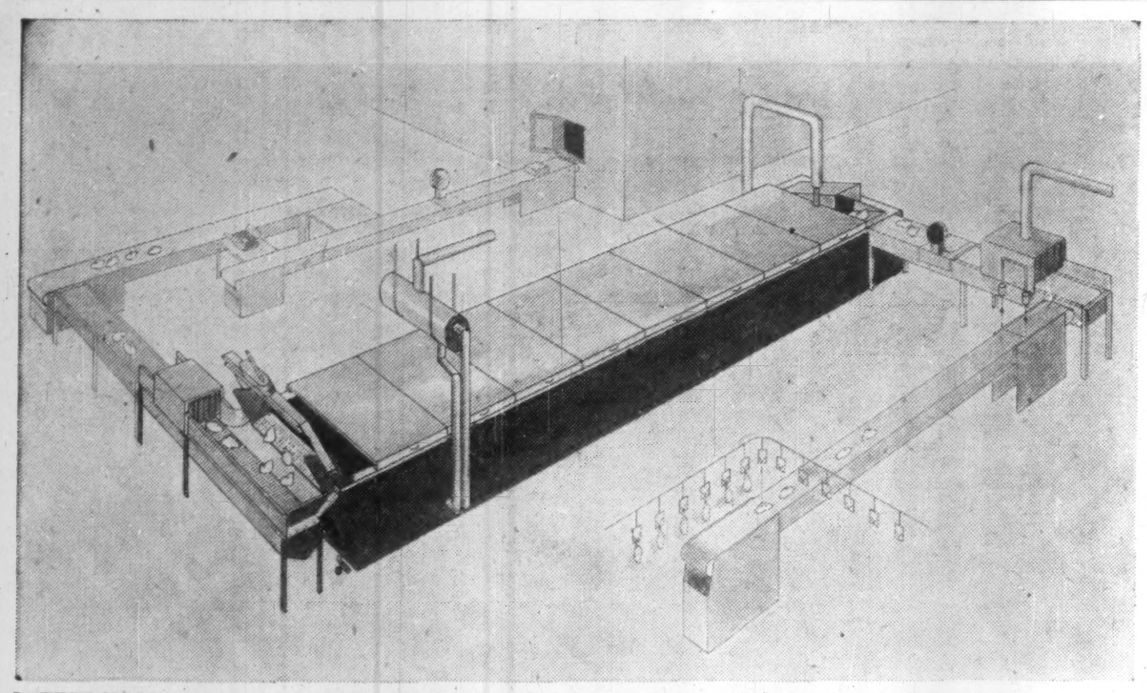
"Nothing adds to my office employees' efficiency like Chrysler Air Conditioning. We're not just cooler now—we're really comfortable. Our Airtemp wrings out the humidity in a hurry. And it operates so quietly, I can hear all the latest rumors flying around the water fountain."

"I specified Airtemp for my building for many good reasons. Dependability—assured by Chrysler's 25 years of leadership in packaged air conditioners. Economy—from their new Power Miser Compressor. Selection—Chrysler offers the biggest choice. And includes, as standard equipment, safety features most manufacturers don't offer, even as extras."

More businesses do more business with Chrysler Airtemp. Your local Airtemp Dealer will be pleased to show you why.

CHRYSLER AIRTEMP

For complete details write to
THERM-O-RITE PRODUCTS LTD., TORONTO 19



LATEST MODEL of new immersion freezing system eliminates human handling. This type of freezing, used mostly for poultry, does not require as low freezing temperatures as older methods. Plastic-packaged poultry travel in continuous route for delivery into freezing room (at top of above drawing).

Automatic Chicken-Freezer Packs Poultry in Plastic

Big strides are being made in the rapidly changing pattern of bringing food products to Canadian consumers.

And refrigeration plays a major part — the key role — in the food industry's advances.

It makes possible better foods, in more convenient forms and, just as important, it is providing food interests with the key to larger-scale operations which in turn mean economic distribution.

One area where these new methods can be dramatically seen is in distribution of poultry — a major food item in Canadian menus.

Behind the food store's well-stocked case or counter is the refrigeration industry and its new equipment, new methods and systems which have revolutionized food distribution.

Not only in the store, but in the processing and packaging plant, refrigeration opens new vistas for the food industry and consumers.

In the freezing of produce, a new development has been added.

It's a dramatic new system that cuts out human handling entirely from the freezing process.

Completely Canadian in design and manufacture, the process is a new improved method of immersion system of poultry freezing.

This system has changed freezing methods over the last few years. But only now has it become completely automated.

When poultry is being frozen, it is or has been usual to require an operator at both the receiving and unloading ends.

The operators are eliminated in the new liquid spray and immersion freezing system developed by **Canadian Ice Machine Co. of Toronto.**

This 40-year-old firm is just now placing the freezing system on the market and plans to sell it for export to U. S. too.

Besides its automation, the system is said to require higher freezing temperature for the final freezing process, a smaller compressor per 100 lb. of poultry.

Blast freezing requires a temperature of —30 deg. to —40 deg., a company spokesman says. That compares with —10 to —15 deg. for finish freezing in immersion process.

The system is a combination of float and spray, free from any mechanical conveyance inside the tank.

There is automatic feed and automatic timing for poultry removal, needing no operator from time poultry leaves the shrinker to time it is boxed.

It is claimed that the system delivers poultry uniformly in colors from natural pink to chalk white. A thermostat setting is all that is required.

The system works with any brine, propylene glycol, common salt or calcium chloride.

The newly improved method is a continuous one, with poultry — packaged in plastic Cryovac bags — moving in an "S" route from packager to delivery automatically into freezing room.

Actually, any other product, such as fish, which can be packed in a plastic bag, could be handled in the system.

Capacity is 4,000 birds per hr.

TCA Unit

Cool 14 Homes

(CONTINUED FROM P. 50)

senger, 550 - mile - an - hour Douglas DC-8 Jetliners and the 100-passenger Vickers Vanguard turbo-prop aircraft, scheduled for delivery beginning in mid-1960.

More than 100,000 sq. ft. of materials storage space will be provided in a 300-ft. wide annex adjoining the overhaul hangar. This area will be equipped with a complete pneumatic tube message system and a floor-conveyor system, as well as monorail and crane systems for materials handling.

The office building is separate from the main structures and it is connected by an enclosed corridor.

This air-conditioned building is constructed of metal and glass curtain-wall with a steel frame and concrete slab roof.

It will house overhaul and maintenance base headquarters offices, an electronic data processing centre, a medical centre and a large cafeteria for the convenience of all employees.

Another building of the same construction, sealed and air-conditioned, will contain the DC-8, Vanguard and Viscount flight simulators in a two story hall, with adjoining training rooms and attendant areas.

This building will also house certain headquarters offices.

The combustible stores building block is of concrete construction and is separate from the main area. Parts of this building are protected by carbon dioxide fire extinguishing systems.

The power plant building contains:

- **Heating plant, comprising three high-temperature pressurized hot water boilers with supply temperaure of 320 deg. F., distributing through insulated mains** throughout the base and returning at 220 deg. F., having a total capacity of 115,000,000 BTU/hr., fully equipped with automatic monitoring and control system, compressed air soot blower and designed for either bunker oil or natural gas firing.
- **Air conditioning plant, of two 750-ton chilled water refrigeration compressors and cooling tower. It is designed, through separate forced air systems,** to serve all office areas and such special sections as the simulated flight training section and the electronic data processing section, as well as the accessory electronic and instrument shops.

A complete automatic monitoring and control system will be provided as part of the air conditioning plant.

*Could be 50,000, 100,000, 200,000, or whatever your production run.

You save time and money every time a Speed Nut is tightened. Multiply this saving by the number of fastening operations on your assembly line and the cost reduction is very significant. What's more, improvement in product performance accompanies this cost savings because Speed Nuts provide a *positive* spring tension lock to every fastening.

There are 8,000 different types and sizes of Speed Nuts now in use. If one of these won't cut *your* costs, we'll design one that will.

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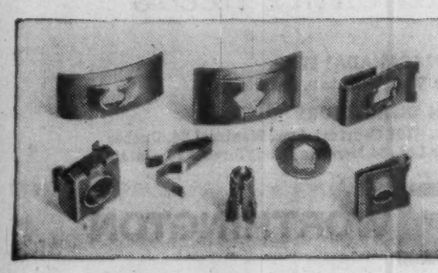
Take 10 seconds now to fill in this coupon — and you'll save precious seconds thousands of times over to lower your production costs.



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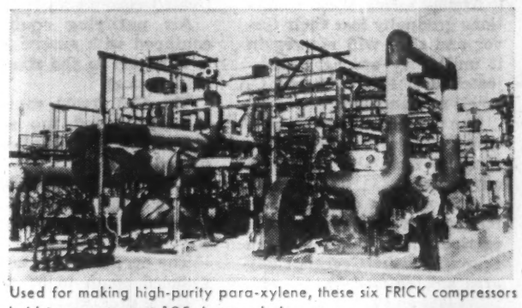
REFRIGERATION
Serves the chemical industries



Used for making high-purity para-xylene, these six FRICK compressors hold temperature at 125 degrees below zero.

Salk Vaccine Laboratories at Medical Centre, University of Toronto, where FRICK "Eclipse" compressors provide all the air conditioning.

Vital to the function of today's laboratories and chemical plants are cooling services of such diversity and precision that the requirements can only be intelligently met with custom-built equipment. Having installed FRICK refrigeration and air-conditioning in large numbers of Canada's leading laboratories and chemical plants our broad experience in this field has saved many of our clients from costly experiments.

There is no charge for consultation

Ask for
BULLETIN 250

J. H. LOCK & SONS LTD.
OTTAWA TORONTO

Home Market Hot Prospect

The 75th anniversary this year of the introduction of automatic heat underlines the difficult job of public education which always faces the air conditioning as well as heating industry.

Automatic heat — forerunner of today's air conditioning — stems from the invention in 1885 of a gadget to operate the dampers of a coal-fired furnace or boiler.

It provided a missing link between a thermostat and the heating system.

Like many other developments, however, the public had to be sold. And thermostat makers faced a big educational job before markets opened up.

Today, one of the big question marks facing air conditioning industry centres around the home:

Will the residential market open on a major scale for complete air conditioning systems?

There is plenty of evidence that this will be one of the hottest markets of the 1960s.

Public attitudes do not appear to keep pace with technological developments, according to W. H. Evans, president of **Honeywell Controls.**

His firm, whose founders backed the original electric thermostat, will spearhead a 1960 campaign to mark the 75th year of climate control.

A common attitude in Canada is that air conditioning of homes may be necessary below the border, but not here.

One firm reports that a survey of conditions in Toronto shows there are more than 100 days in every year when cooling is required for maximum comfort.

The market, recently thought to be 20, 10 or at best five years away in Canada, is actually here now.

It has been catapulted into the present, in part, by the wide use of air conditioning in office and institutional buildings, and in hotels and motels, restaurants and theatres.

The contrast of comfort outside the home with discomfort inside the house is having a profound effect in changing the public's thinking habits in this area.

One of the success stories in the air conditioning field is that associated with the acceptance of electronic air cleaning.

Although the principle of electronic cleaning has been known for many years, and despite the fact that equipment has been on the market for decades, it has only been within the past two years that the concept has been enthusiastically received.

Electronic air cleaning functions by having dirty air enter the air cleaner after which the microscopic particles of dust and dirt are given an electrical charge.

The dirty air then passes over collector plates which have a negative charge.

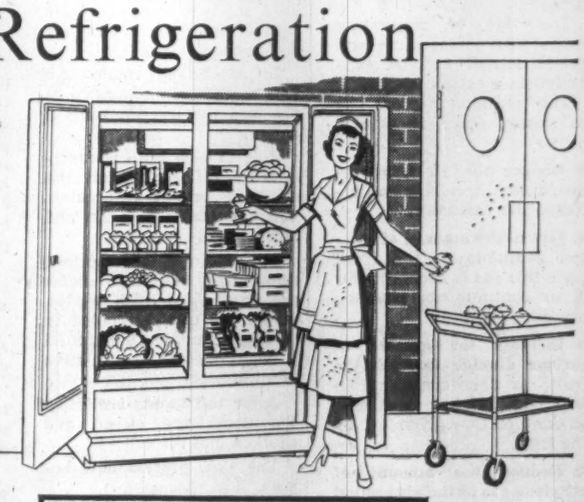
The dust and dirt particles are collected on these plates, which are sprayed with hot water for cleansing.

improve your business "climate" with...

Air Conditioning

Commercial Refrigeration

call your Frigidaire Commercial dealer



Buyers of Commercial equipment everywhere in Canada, and in most of the world, recognize the leadership of Frigidaire. They trust Frigidaire Commercial products and the men who sell and install them. This trust is built on dependability—backed by the resources of both Frigidaire and General Motors.

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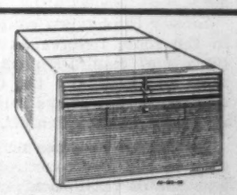
Products of Canada Limited
1901 Eglinton Ave., E., Scarborough, Ontario



For Home, Office and Business

High-Capacity Dry-Cooling!

You get cool, quiet, draft-free comfort with a Frigidaire Heavy-Duty Imperial room air conditioner. These handsome "low silhouette" models are ideal where you need "a little more than average" room air conditioning. And they can be installed in a transom or thru-the-wall — placed in windows flush with drapes, or balanced on the sill.

Frigidaire — Product of General Motors

Apple Every Day of the Year Through Controlled Atmosphere

Canada's apple crop is around 16 million bu. It is valued, at farm level, at around $20 million.

Thanks to refrigeration, or what is known as controlled atmosphere, it is a year-round business. Controlled atmosphere will give you prime Canadian apples every month of the year.

Speaking recently to the Toronto Chapter of the American Society of Heating, Refrigerating and Air Conditioning Engineers, C. E. Bell, director of Beaver Engineering Co. Toronto, revealed the hows and whys of controlled atmosphere in apple storage.

Here's a digest:

By C. E. BELL

During the past few years great strides have been made in the apple storage industry in Canada.

These changes have taken place without the public realizing exactly what has happened and the majority of Canadians are not aware any changes at all have been made.

In this atomic age and time, when tremendous advances seem to occur daily in nearly all phases of science the "controlled atmosphere era" has entered practically unheralded.

Just what is "controlled atmosphere (C.A.) storage"? Who developed it? How is it different and why is it so important?

Fruits, even though detached from the tree, are living things.

A process of respiration in which fruit sugars are being oxidized is being carried on continuously.

In short, fruits absorb oxygen (O_2) and in the process give off a number of gases, one being carbon dioxide (CO_2).

The rate of respiration varies with temperature and humidity and can be controlled to a certain degree.

This ripening process can be slowed down in several ways:

- **Reduce the air temperature** around the fruit and increase the humidity.
- **Lower the amount of oxygen** available to the fruit, since this gas is necessary for it to continue its ripening process.
- **Increase the amount of carbon dioxide** around the fruit, as this concentration will tend to slow down the amount of CO_2 given off by the fruit.
- **Reduce the amount of ethylene gas** in the air around the fruit, as this gas aids in the ripening process.

In C.A. plants all the above things are accomplished.

This process has been particularly successful with some types of apples, and in particular with the popular MacIntosh Red brand, which is known throughout most of North America and Europe.

The technique of controlled atmosphere storage was initially developed in England in the early 1930s and later adopted and applied commercially in the apple belt in New York State.

Fruit growers in Canada, and particularly in the Georgian Bay area in Ontario, became interested in the process and in 1955 one of the first Canadian plants was put into operation at the **Georgian Bay Co-Operative,** Thornbury.

In 1956 a second plant in that area was built at Meaford — **Barker Storage.**

These plants have since been extended and other plants have been erected, as far west as Windsor, as far east as the Eastern Township of Quebec, as well as other parts of Ontario.

The importance of this new process of storage is manifold.

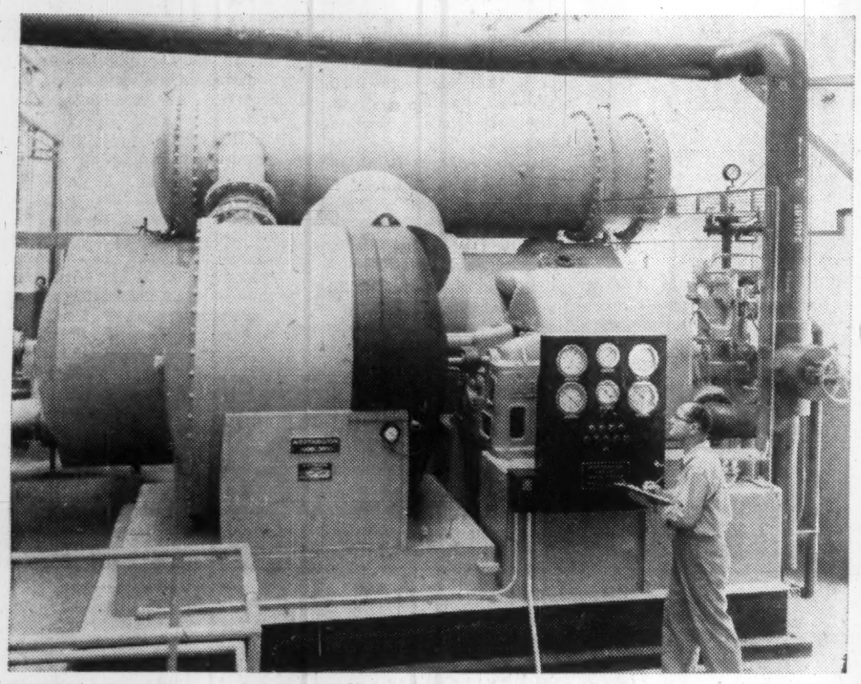
Now it is possible to greatly lengthen the storage life of this particular fruit with the accompanying economic advantages to the growers.

Now it is possible to obtain apples picked in September out of storage plants in May in prime condition.

These apples come out of the C.A. rooms hard, firm and juicy, in practically the same condition you find in freshly picked apples just off the tree.

How is the process different?

C.A. storage rooms must be gas-tight. No air must be allowed to infiltrate the rooms.



HEART of modern centrifugal refrigeration system. This one has two-stage Worthington compressor, capacities range from 125 to 3,500 tons.

Standard construction calls for insulated rooms to be metal lined, with all joints caulked and sealed, and with all openings filled with special air-tight doors, also caulked and sealed into place.

The rooms cannot be entered during the storage period. All equipment in the rooms must be very carefully installed and all parts that require periodic servicing, if possible, placed outside of the rooms.

The reason for the gas-tight requirement is that absolute control must be maintained over the oxygen and carbon dioxide content of the rooms. The infiltration of only a slight amount of air would throw the system off balance.

In MacIntosh rooms the CO_2 content is maintained at 6% and the oxygen content at 3%.

This CO_2-O_2 level is considerably different from the standard air we breathe, which contains 21% O_2 and .025% CO_2.

To obtain this important relationship, the C.A. rooms are first filled with apples, which are quickly cooled to 32 deg. F. and the air around is maintained at 85% relative humidity.

After the rooms are filled the doors are closed and caulked into place.

The C.A. process now begins.

Slowly the oxygen content in the room reduces as the process of respiration continues and gradually the CO_2 content in the rooms builds up as the gas is given off.

In time it becomes necessary to add small controlled amounts of ventilation air to the rooms to keep the O_2 content up.

Meanwhile excess CO_2 is removed from the air by the use of caustic soda in the spray coil cooling system.

All during the C.A. period the room air must be sampled twice daily with Orsat equipment to measure the CO_2 and O_2 and the refrigeration equipment must be carefully operated to maintain the temperature/humidity level necessary.

Apples under these conditions gradually lose their flavor and they will not regain it until they are again subjected to normal CO_2 and O_2 levels of standard air.

The flavor regaining process takes several days after removal from the controlled atmosphere.

This process of storage is far removed from the practice carried out by many orchard growers in the Georgian Bay area not too many years ago.

As late as 1930 it was quite common to see standard "fruit houses" being built for storage.

These buildings were equipped with air vents along the wall and in the roof to allow outside air to circulate to do the cooling.

In many areas in Canada the fruit house has since been replaced with standard cold storage plants.

Many of these early plants were nothing more than insulated rooms, equipped with long rows of cooling pipes hung from the ceiling through which room air flowed by gravity to do the cooling.

Large slow-speed reciprocating compressors circulated ammonia through the coils.

The modern C.A. plant equipment utilizes large floor-mounted cold diffuser blower units, which are provided with centrifugal fans, spray sections, cooling coils, sump and circulation pumps.

Providing refrigeration for these units are small multi-cylinder Freon compressors equipped with automatic capacity reduction control.

Room temperature is maintained within ½ deg. F. of the control point and likewise room humidity is kept not lower than 95% during the storage period.

The air is rapidly circulated throughout the rooms by ductwork located at ceiling height.

During the initial loading period room temperatures are maintained at 32 deg. F. and humidity at 85-90%. Brine is circulated throughout the cold diffuser equipment to provide frost-free coils.

When the rooms are sealed and CO_2 and O_2 at the correct level, the room temperature is slowly raised to 38 deg. F. and the humidity is also increased to 95%.

This is the ideal temperature for MacIntosh storage, other brands require slightly different conditions.

At the higher room temperatures, brine is no longer required to maintain frost free coils and water is used.

A caustic soda solution is added periodically to the spray water, its purpose being to absorb the excess CO_2 present in the C.A. room air.

More, or less, caustic is added to the spray water as the need arises.

With the room tightly sealed, exact control over CO_2 and O_2, humidity and temperature can be maintained by closely controlling the operation of the system.

Sealed rooms build up foul odors over the storage period.

This problem is a serious one, as it can cause off-flavor in the apples, and also has a tendency to encourage scald.

The offensive gases can be satisfactorily removed by activated coconut shell carbon.

Air purifying equipment, equipped with carbon filters, is mounted in the rooms for this purpose.

The C.A. room cannot be entered during the storage period, nor can fruit be removed.

When the seal is broken and the room opened it is not possible to return the fruit to the C.A. state.

The opened rooms are then reduced again to 32 deg. F. and the product treated as in a normal storage plant.

The details outlined above apply in particular to MacIntosh apples.

Other types of apples can be very successfully stored under slightly different CO_2 O_2 conditions.

A great deal of experimental work has been carried on in the U. S. at Cornell University and in more recent years at centres in Canada.

The tremendous strides made by the refrigeration industry will be a big boost to Canada's 350-year-old apple industry.

It is not generally known that apples were first grown in Canada by French settlers in the 1600s. This was in settlements on the East Coast, in Acadia, or Nova Scotia as it is known today.

Fruit growing, one of the pleasantest of occupations, is probably one of the greatest gambles on earth.

Growing wheat in Western Canada around my home was a sure thing compared to this product.

In addition to the gamble with nature in all her varieties and moods, there is a market gamble with a product which is highly perishable and whose storage life until a few years ago was limited.

Apples were first exported in 1849 to Britain; by 1890 about 100,000 bbl. were exported — 45 yr. later, 1,500,000 bbl. were shipped from Nova Scotia alone.

The production of apples over the past 30 years has not changed appreciably.

The late 1920s saw the production of about 10 million bu. — that figure increased to 15 million by 1937 and the crop in 1957-58 was about 16 million.

The major change has been in the export field. In 1933, 65% of the production was exported and in 1957 about 20% exported. U. S. production in 1957 was 118 million.

A shift has also taken place in where the fruit is grown.

Nova Scotia used to be the big grower and exporter. Today the picture has changed.

B.C. produces 43%, Ontario 20%, Quebec 19% and the Maritimes the balance of 21%.

Some 20% of the crop is exported, 50% consumed fresh in Canada and 30% is processed into juice, pie filler and vinegar, etc.

The main market is right here in Canada. The only way to extend that market is to extend the life of the fruit itself.

If prime apples can be obtained out of Canadian storage plants all year, the growers will have to depend even less on the export market than they do today.

It should be possible to expand our exports considerably and put them on a year-round basis using controlled atmosphere storage.

Discomfort Index Here To Stay

The advent of the Discomfort Index coincided with one of the hottest, most humid years on record in many parts of the country.

The index was instituted chiefly as a guide for judging when an office should be closed down because of heat.

But it became a popular topic of conversation, was featured on daily weather reports through summer last year.

Several air conditioning firms have brought the index into their own promotion and selling.

The index is likely to continue to figure in promotional programs of the industry.

As one dealer points out:

"This is a ready-made chance to emphasize the lack of home comfort and the tools we have to correct it."

Are your profits trickling down his collar?

He may be your best employee, but when the hot, sticky summer invades your office, his efficiency drops. The "mopping up" process takes much of *his* time—and costs *you* money!

That's why effective air conditioning is an investment—not a luxury.

Westinghouse Packaged Air Conditioning offers the comfortable, even temperature that office work demands. Units are designed in a variety of models and installation arrangements to meet every need—large or small. Automatic controls and quiet operation, plus a 5-year warranty on refrigeration units, are other important features.

To find out how Westinghouse Packaged Air Conditioning will meet your requirements, contact your local Sturtevant Division office or write to the Sales Department, Galt, Ontario.

WESTINGHOUSE PACKAGED AIR CONDITIONING
• capacities from 2 to 50 tons • air or water cooled units • duct or ductless installation • fast installation • automatic controls • quiet operation

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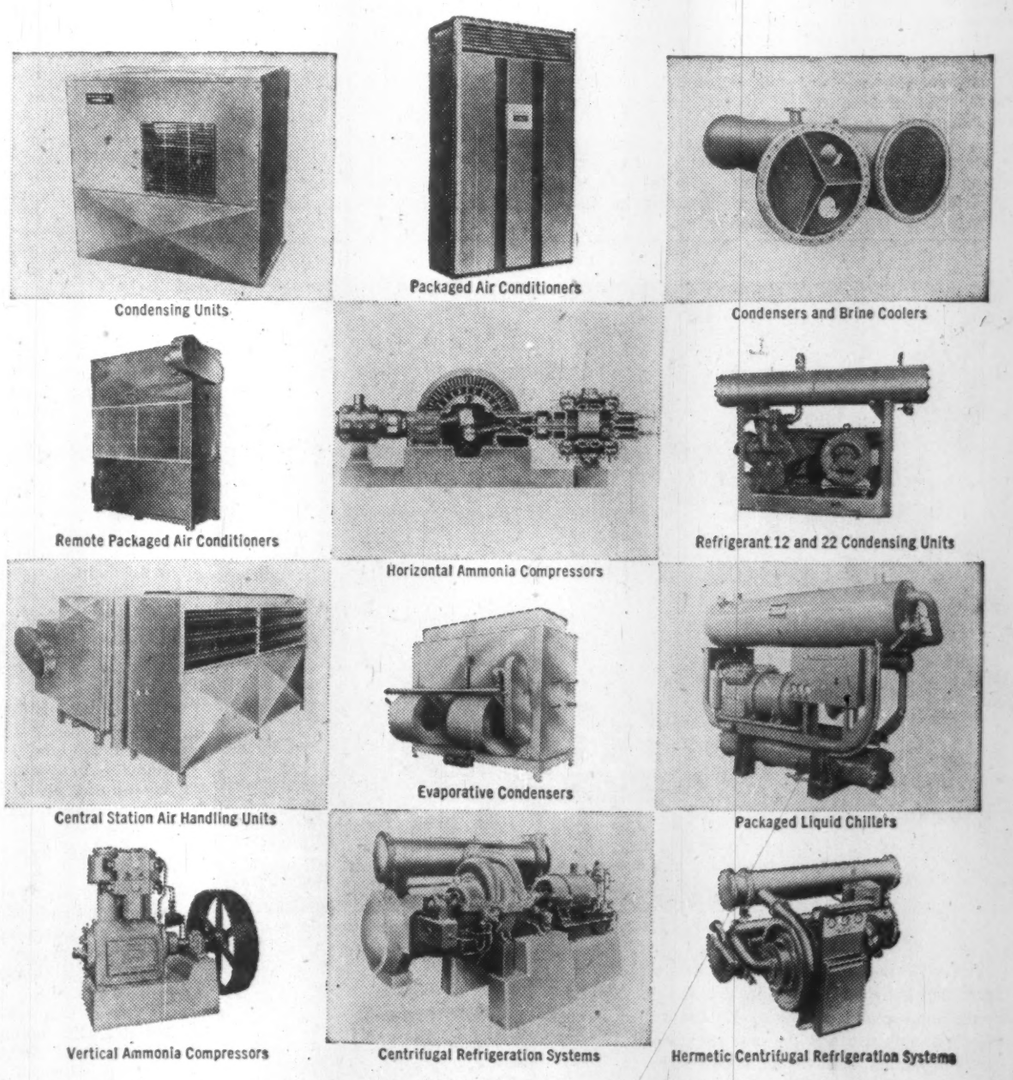
Made in Canada by the **Sturtevant Division** of Canadian Westinghouse Company Limited, Galt, Ontario.



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serving all Canadian air conditioning needs

Your exact air conditioning requirements can be satisfied by Worthington's complete line of packaged and central station equipment.

Known for its dependability throughout Canada, Worthington air conditioning is at work today wherever engineered temperature is needed to make a better product or provide more comfort.

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WORTHINGTON

Cheaper Schools

With Air-Conditioning?

Financially hard-pressed Canadian municipalities might do well to take a close look at air conditioned schools. They may save on building costs.

Construction contracts for the 750-pupil F. Ware Clary Junior High School at Syracuse, N.Y. have been cited as proof that school building costs can be reduced by use of central air conditioning to allow a more economical architectural design.

Air conditioned schools can cost less than those with conventional heating and ventilating systems.

The Syracuse Department of Engineering has called Clary School one of its greatest "bargains."

Dr. Paul A. Miller, Superintendent of Schools for Syracuse, said that with the cost of air conditioning included, a net saving of $54,000 will be achieved by building compactly instead of erecting a school with long classroom wings.

"The only purpose of wings," said Dr. Miller, "is cross-ventilation. The need for a constant supply of fresh air can be better served by an air conditioning equipment which will clean it and control the temperature, humidity and circulation."

Dr. Miller added that air conditioning offered the great advantages of "permitting better teaching and learning and of being completely useable day or night, in any season".

Charles V. Fenn, vice-president of **Carrier Corp.** and general manager of its machinery and systems division, said air conditioning signalled a halt in the upward trend of school construction expense. Carrier will supply air conditioning equipment for the new school.

Major savings in construction stem from the use of compact rectangular buildings made possible by air conditioning, according to Murray Hueber of **Pederson, Hueber, Hares and Glavin** of Syracuse, developer of the Clary School plans.

Up to now, said Mr. Hueber, modern school design has featured a number of long narrow classroom wings to obtain cross-ventilation and some relief from the excess heat generated by healthy youngsters, modern lighting and the sun.

The new school will be in two simple rectangular sections connected by an enclosed passageway.

One building will house 31 classrooms. The other will have vocational shops, a 750-seat auditorium, a gymnasium, a cafeteria and the administration offices.

Hueber estimated that use of such a design rather than a group of classroom wings has reduced the length of foundation wall by 1,100 ft., the amount of masonry side wall above ground by 9,100 sq. ft. and of glass by 9,000 sq. ft.

In addition, less piping will be needed for storm drains, sanitary sewers and domestic hot water. Power lines can be shortened and will be of lighter gauge.

Savings from these will amount to about $150,000 with no loss in floor area. The cost of the cooling equipment for the year-round air conditioning system is about $95,500. The net reduction in cost is therefore $54,500.

The savings could have been even greater, Hueber said, except that cooling and heating equipment and pipe sizes to be installed are larger than the building presently requires.

They have the capacity to handle an expansion in classroom area of 50% if future needs require it.

Hueber summed up the difference between the compact air conditioned structure and the type incorporating extended classroom wings:

"Economy is possible with compact construction, but compact construction is not possible without air conditioning."

In addition to reduced construction cost, the new type of school building will offer greater operating economy.

Dr. Miller estimated that filtering of outdoor air will cut cleaning and maintenance expense by about $4,000 a year.

Carrier's Fenn estimates that the total cost of both cooling and heating the school over a 9½ month period will be less than that of heating alone in a building of different design.

Fenn explained that there is less wall area through which outside weather can affect indoor conditions than there would be in a school with "finger" wings.

Also, corridors just inside the exterior walls serve to insulate classrooms from extreme outdoor conditions and make it easier to maintain stable conditions.

Significant as well to the future economics of the school system are these facts, Mr. Fenn said:

- **The school will not become obsolete.** He predicted that most new schools will incorporate air conditioning within the fairly near future.
- **It can be operated year-round.** Attendance at remedial and enrichment courses taught during the summer at schools across the nation is increasing annually.

Here's What a U.S. Study Discovered

The decision to install air conditioning is not made only because an air-conditioned environment is pleasant.

No chief executive could justify the expenditure on that basis alone. His decision must be predicated on a dollars-and-cents pay-off.

A study for the U. S. government shows air conditioning:

- **Increases worker output more than 9%.**
- **Cuts absenteeism 2.5%.**
- **Cuts down resignations.**
- **Cuts errors by 0.9%.**
- **Slashes cleaning bills.**

With one out of every six employed persons an office worker and the end to the growth of office staffs not yet in sight, there is a challenge to industry and government to cut payroll costs.

It was with this in mind that the General Services Administration of the U. S. government recently made a significant study on the economic effects of air conditioning.

Previous studies made by the General Services Administration had demonstrated that a 7 min. saving in time per employee per day will more than pay for the expenses of an air-conditioning system.

In their words, "if work production increases only 1.5% per year, the system will pay for itself through savings in salaries".

But how much of this increase in productivity does air conditioning actually deliver?

Numerous reports appearing in technical papers gave accounts of tests in which air conditioning increased productivity by as much as 50%, but when the results were analyzed it was generally found that other environment changes—lighting, acoustical treatment, painting and the like—had been made at the same time air conditioning was installed.

So the Public Buildings Service of GSA resolved to set up a test under carefully controlled conditions—a test in which air conditioning (or the lack of it) was the only variable — and began to search for some department of the U. S. government that might serve as an ideal laboratory.

They found what they were looking for—two large office spaces, in each of which the same type of clerical "searches" is conducted year after year.

According to the test plan, one area would be air conditioned; the second would not.

But in all other respects the two would be identical—including type and intensity of lighting, color scheme, the number of employees (70) who worked in each, average age (21.25 to 21.51 yr.) and distribution between men and women.

Over five months — May through September — painstaking records were kept on work rates, number of errors and absenteeism for both the air-conditioned and non-conditioned groups.

The results were almost sensational.

The report deals with questions uppermost in the minds of executives searching for a way to justify the expense of air conditioning —and provides unequivocal answers.

▸ **Does air conditioning increase work production?**

The answer to this most important question is "Yes".

▸ **How much is the increase?**

The records for the five-month test show that work production of the group in the air-conditioned space varied all the way from 6.5% to 13.5% higher than of employees in the other area.

The 9.5% average production increase in the air-conditioned test area over the rate of production is significant.

Previous studies had shown that if work production increases only 1.5%, the air-conditioning system will pay for itself through savings in salaries. With 9.5% increase, the savings would be greater.

Air conditioning also had an important bearing on absenteeism.

Says the report:

"Accurate records were kept of all sick leave taken and its causes.

"Absences positively not associated in any way with air conditioning or the lack of it (fractured bones, operations, abscesses, ulcers, etc.) were disregarded for the purposes of this survey.

"Absenteeism in the non-conditioned area was 2.5% higher than in the air-conditioned space.

"This is more astounding considering that the groups mixed with each other and strangers at lunch time, rest periods, in stores, on streets, and in public transport for the major portion of the day and therefore were exposed to all kinds of diseases prevailing in the community."

Another section of the report deals with the incidence of errors in the test control area.

It reports "an average 0.9% increase in errors per person per month in the control (non-conditioned area)".

The study made no attempt to evaluate the possible effects of air conditioning on turnover.

People left the two areas for a variety of reasons, including marriage, promotions and reassignments.

But figures show that 0.5% fewer people left the air-conditioned area.

One of the most intriguing sections of the study is reported under the heading of "Intangible Effects".

It reads:

"It was interesting to talk to people in the air-conditioned area and hear their reasons for liking to work there. All employees, with the exception of one girl, preferred to work in the air-conditioned area."

Here are their reasons:

- **Considerably less consumption of chilled drinking water.** (This is a factor which may be pursued further, since a small saving in drinking water per person might mean a considerable saving in installation and operating costs.)
- **The girls were pleased with the noticeable saving in money on make-up** and hair-dos, attributed to the absence of electric fans and high humidity.
- **Elimination of wall fans** was appreciated by employees for still another reason.

No matter where fans used to be placed, there was always disagreement and complaints about the noise and blowing of papers.

- **Less soiling of clothing.**

All employees, both male and female, agreed that their clothing remained cleaner and fresher, and showed less staining due to perspiration and discoloration due to dirt.

Many felt that they would wear their day clothing to a social function that same night.

- **The majority felt that the heat after working hours** did not affect them as much as formerly, when they were subjected to it all day.

Summarizing the conclusions of its probe the General Services Administration said:

"It is safe to assume that in any other type of office work, where the rate of production is not standardized and where no minimum requirement must be met consistently, the increase in productivity will be more than enough to pay for air conditioning through savings in employee salaries."

The implications of this study are enormous to government, business and industry leaders everywhere.

Transporting Food Booms With Refrigerated Vehicles

Along far north highways, a food-carrying, refrigerated transport may be delayed several days under certain poor driving conditions.

A few years ago, such a hold-up could have been disastrous to the perishable load.

Today, the chances are excellent for ultimate delivery of the food in proper condition.

It points up the big improvements which have been made in mobile refrigeration methods.

Cooling and heating units are much more reliable than formerly, with mechanical equipment capable of maintaining temperatures down to below zero.

Many mining camps and towns rely on the trucks coming through.

But while there has been sweeping growth in refrigerated truck transportation, other transport methods are heavily involved in the movement of perishable foods across the country.

The airlines move food by thousands of pounds east and west, and into the north.

Special food cargo planes regularly bring fresh foods to northern communities. Others move fruits from the fruit-belts to all major cities, fish inland from the coasts.

Railways remain the big carriers of food and beverages which run to around 30% or more of total freight tariff revenue.

The transportation industry works constantly to improve this service.

Quickly rising living standards have led to opening of supermarkets in areas where recently the trading post and general store dominated the merchandising scene.

But virtually all Canadians now expect fresh fruit and vegetables, frozen and convenience foods.

Only by a vast improvement in transportation could these foods be brought to them, because of long distances and often hard-to-negotiate terrain.

Some developments in field of specialized refrigeration equipment for trucks illustrate the trends:

Design engineers of such equipment face the problem of providing a fairly large capacity in a small (and light-weight) package.

There should be an easy method of installation on a truck body or trailer.

There are two types of vehicles in common use by the trucking industry, according to H. O. Kirkpatrick, general manager of **American Manufacturing Co.**

- **Semi-trailers or trailers** for long distance hauling.
- **Straight truck, for local delivery.**

The trailer, towed by a truck tractor, may vary from 20 ft. to 40 ft. in length. Height of insulated enclosure is from 5 ft. to 9 ft.

The temperature requirements will vary — usually from 70 deg. to minus 20 deg. F., with standard 2 in. to 8 in. insulation.

Runs of such trailers range from a few hours to several days.

A common type of trailer refrigeration unit is powered directly by an internal combustion engine. Fuels are butane, propane and gasoline.

One such unit is available as a self-contained, one-piece package that is installed through opening in front wall of trailer.

Evaporator section projects through into the refrigerated space and condenser outside.

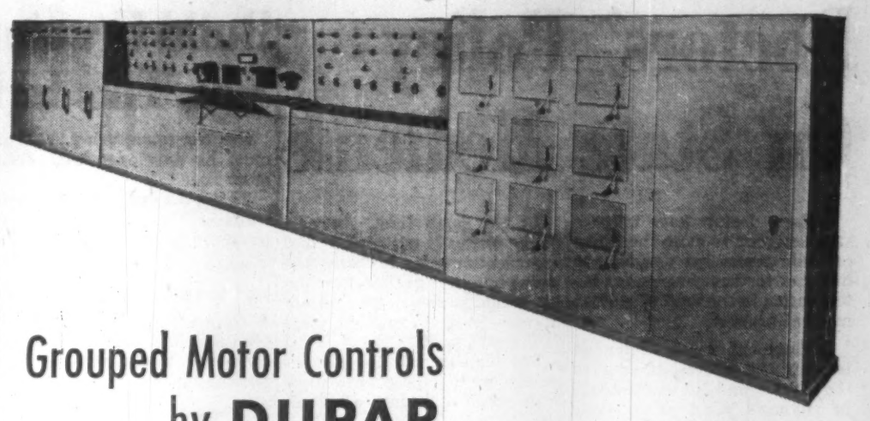
In this particular unit, the engine operates automatically according to temperature demand. Defrosting is automatic, controlled by a timing motor. Hot gas is source for the defrosting.

Another type is the hermetic unit. This is a system powered by an internal combustion engine - alternator power unit. A self-contained, hermetically sealed package mounts through opening in upper front wall of trailer. The engine - alternator is mounted beneath the trailer floor.

In this sytem, the gasoline engine is separated from the refrigeration system, making service easier and reducing risk of leaks from vibration.

This is similar to method of some railways in their reefer cars.

Another type of trailer unit is driven by a live axle, directly or through hydraulic or electric system.



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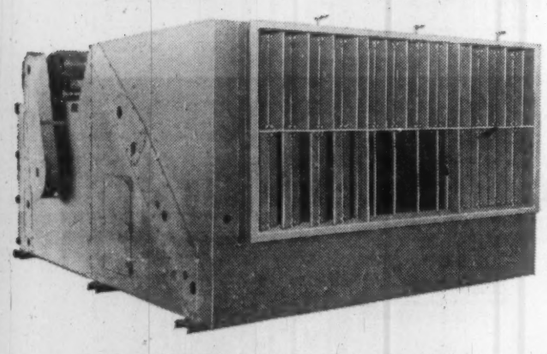

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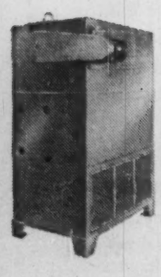

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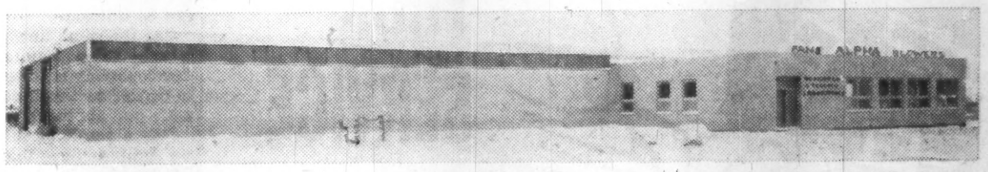
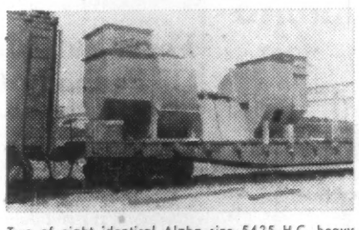
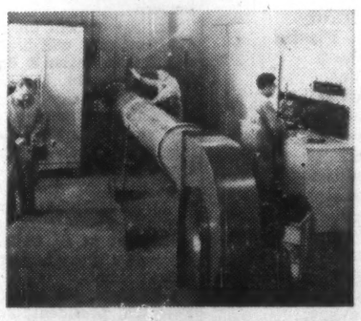


A view of the new Alpha Plant No. 4, now under construction in Winnipeg, and scheduled for completion in February 1960. This building will house a $50,000.00 research and testing laboratory which will be used exclusively for product development and testing of fans and air conditioning equipment.



Two of eight identical Alpha size 5425 H.C. heavy duty potline dust control and cooling fans for Aluminum Co. of Canada Ltd.



A typical centrifugal fan performance test in the present Alpha research and testing laboratory.

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Doctors' Policy On State Medicine

Ontario doctors have taken a step designed to close the ranks of their profession against the threat of further government intervention in the field of private medical practice.

A statement of policy intended to unite the profession, educate the public, and leave no doubt in anyone's mind as to their position regarding "state medicine", has been issued by the council of the Ontario Medical Association, representing some 5,800 member doctors in the province.

The statement sets out the rights and responsibilities of both patients and doctors which it feels are necessary to assure adequate medical services and protection against the expense of unforeseen sickness and injury.

As teeth to its new policy, the OMA has recommended that doctors refuse to accept third-party payments directly and to look only to the patients for the payment of their services.

The OMA makes an exception, however, in the case of prepaid medical insurance plans, such as **Physicians' Services Inc.,** which are controlled by the profession. Also excepted are payments made under Workmen's Compensation Act and DVA.

The policy is not intended to, nor will it in effect, disturb the status quo, an OMA official told **FP.** Most companies offering indemnity-type medical insurance already make payments to the insured and not doctors, he said.

At the same time, the new policy makes it quite clear that anyone attempting to change the status quo in the other direction by breaking down the present doctor - patient relation, will face a stiff fight.

For instance, if the government were to impose a province-wide medical insurance scheme similar to Ontario's present hospital care plan, doctors would refuse to accept payment from the government agency. In principle, and probably in practice, they would be refusing to accept patients insured under such a plan unless they paid for the services themselves.

Here is the OMA's new credo:

The people of Ontario must have the right to determine:

- Whether or not they wish to prepay the cost of physicians' services, and if so,
- The insuring agency, and
- The scope of coverage.

The individual citizen must have the following rights and responsibilities:

- Freedom of choice of doctor;
- Freedom of choice of hospital within limits of safety to others;
- Freedom of recourse to the courts in all disputes;
- Freedom to choose the method by which he will pay for or prepay his medical care.

The medical profession must have the right and in the public interest, the responsibility to:

- Ensure that a high standard of medical service is maintained;
- Have its composite opinion considered by those responsible for legislation in the health field;
- Refuse to participate in any plan which in its opinion is not conducive to a continuing high standard of medical service;
- Evaluate the worth of its services and retain the principle of fee for service wherever and whenever possible;
- Maintain mediation committees to deal with complaints and to respect the recommendations made by them.

The individual physician must have the right to:

- Freedom of choice of location of practice;
- Freedom of choice of patient;
- Choose whether or not to participate in any insurance plan;
- Determine his method of remuneration;
- Submit any disputes to the courts;
- Treat his patients in and out of hospital within the limits of his competence without interference by laymen.

In addition to laying down this medical bill of rights, OMA has set up two committees; one to investigate means of improving the services of PSI, and the other to examine other prepaid medical plans on a long-term basis.

Build Uranium Power Fast Says This Industry Expert

Nuclear power using uranium must be developed with optimum speed.

That's the view of J. L. Olsen, manager, marketing research, product planning and sales, Civilian Atomic Power Department, **Canadian General Electric Co.,** Peterborough, Ont.

He told a joint meeting of the Electrical Section of the Montreal Branch of the Engineering Institute of Canada and the American Institute of Electrical Engineers, Montreal Section, last week.

"It can fill a large and important gap between the fossil fuels and the development and subsequent perfection of controlled fusion."

Forecasts of the demand and estimated reserves of oil, gas and coal indicate that they may be depleted within the next 100 to 500 years, Olsen said.

"Of all the coal, oil and gas utilized in the world to date, it is estimated that half of it has been used within the last two decades."

The history of fossil fuel will be merely a "blip" on the screen of time, unless other energy sources can be developed for certain applications, thus saving these versatile fuels for the specific applications for which they are best suited.

Canada's first full-scale nuclear power plant, CANDU, is expected to have a capital cost slightly over twice that of a conventional coal-fired plant, but its fuel costs are estimated to be less than half those of coal, Olsen said.

The 200,000-kw plant, to be built at a site near Kincardine on Lake Huron, is scheduled for completion in 1964 or 1965.

It is expected to produce power that will approach in cost that produced by conventional coal-fired plants under similar environment, Olsen said.

"If the relatively high capital cost can be reduced, still maintaining the advantages of an essentially natural uranium design, nuclear power would become competitive for wider applications."

Olsen said that an analysis by Canadian General Electric in 1956 and 1957 concluded that reactor designs capable of using natural uranium would be best for Canada, since the current economics were favorable and the fuel could be produced completely in Canada.

He also defended heavy water as the most efficient moderator for a design utilizing natural uranium as the fuel.

A specific type of hydrocarbons known as organics have several advantages as a coolant over heavy water.

These include low cost, low vapor pressure, which can result in improved efficiency and non-corrosive properties, he said.

However, less is known about the organic cooled system than the heavy water cooled design, so CGE is in the midst of a development program under contract from Atomic Energy of Canada Ltd.

"It is fully expected that the design and construction of an experimental facility will be started later in 1960," Olsen said.

"Canada's nuclear power program is planned to develop competitive power at an optimum rate.

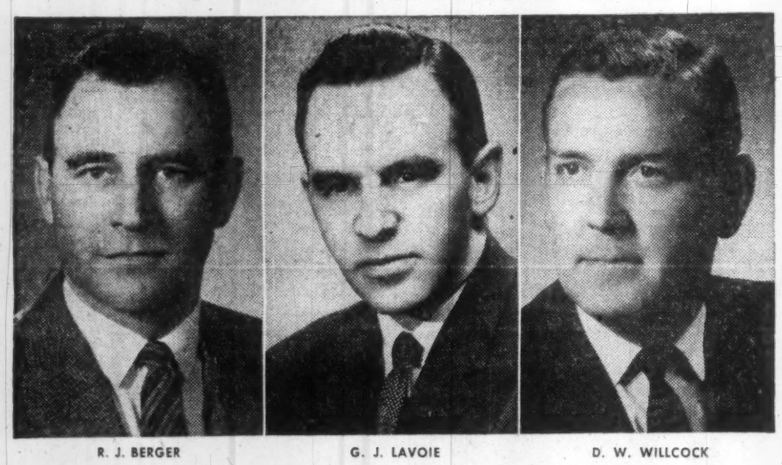
"We are concentrating on a plant design with which we have had the most experience and in which Canadian-produced fuel can be utilized.

"At the same time, close contact is being maintained with developments in other countries to permit continual comparisons with our approach.

"As a result of this analysis, we firmly believe that the present basic design is the best for the current Canadian environment," Olsen concluded.

ANNOUNCEMENT

NIAGARA FINANCE APPOINTMENTS



R. J. BERGER | G. J. LAVOIE | D. W. WILLCOCK

Mr. J. S. Land, Vice-President and General Manager of Niagara Finance Company Limited, announces the following appointments effective immediately: R. J. Berger, District Supervisor covering Eastern Quebec and Montréal; G. J. Lavoie, Advertising Manager, and D. W. Willcock, Personnel Manager.

Form Subsidiary Of Peabody Corp.

Peabody Engineering Corp., New York, has formed a Canadian subsidiary **Peabody Engineering Corp. of Canada,** at 3185A Bathurst St., Toronto.

The U. S. company designs and makes oil, gas and pulverized coal burning equipment, direct-fired air heater furnaces and industrial gas scrubbers, coolers and absorbers.

For the present the new Canadian company will use the facilities of **Combustion & Power Corp. Equipment Ltd.** in Toronto.

This company already sells other lines of similar equipment and will act as sales and service agent for Peabody Engineering Corp. of Canada.

Parent firm already does some assembly work of its products in Toronto plants, expects that development of its Canadian market will ultimately justify manufacture here.

Officers of the new firm: E. G. Peterson, president; John Dunn, vice-president; Ralph Grossman, secretary; R. C. Vroom, treasurer. Grossman is also president of Combustion & Power Equipment Ltd.

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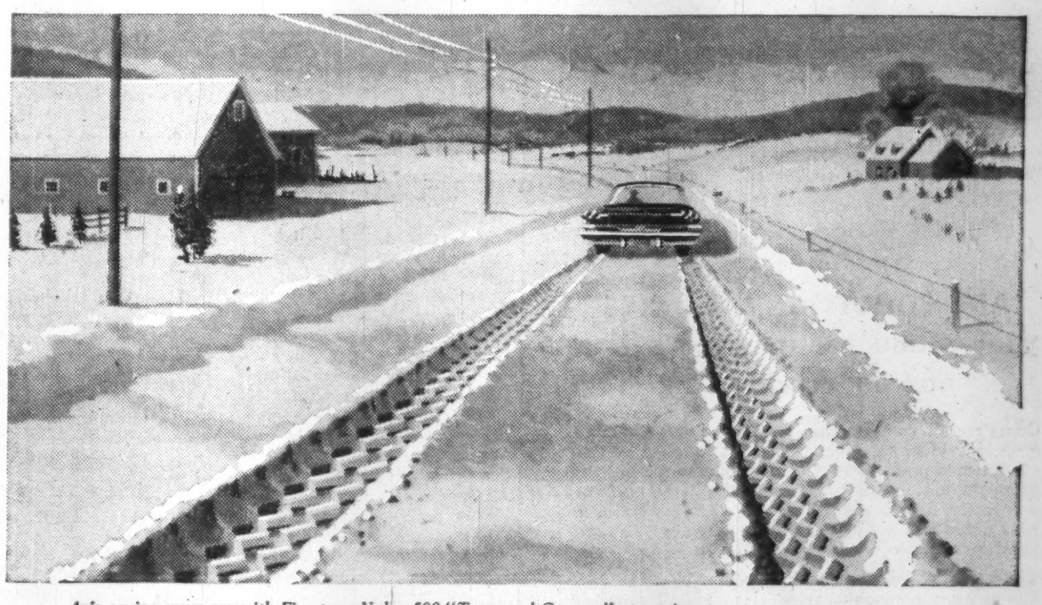

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Province Won't Oppose Plans Of Hutterites

Manitoba government won't fight this move toward incorporation, which might be evidence of Hutterite expansion in the province . . .

From Our Own Correspondent

WINNIPEG — What might appear to be evidence of Hutterite expansion in Manitoba is not likely to stir up a major controversy in the legislative session such as occurred in 1946, even though application is being made for incorporation of 14 colonies.

(In Alberta, the Hutterite question will probably be the subject of much fencing, FP Nov. 21, 1959.)

Protests may come from communities in which they are located but the government itself is not likely to oppose the application.

The colonies seeking incorporation have been operating for several years as voluntary associations and want to be established as legal entities for internal reasons.

One is that title to their land is now registered in name of trustees which, in case of death of one or more of them, involves expense of estate administration and title transmissions and which would be avoided if they were incorporated.

The other is that in case of highway accidents in which one of the colony trucks might be involved, the corporation could be named in any action for or against it rather than an individual.

The government is merely honoring a verbal undertaking of a former attorney-general in 1957 that applications for incorporation of the colonies would not be opposed.

Thus the flare-up of 1946 is not likely to reoccur. In that year three colonies brought in private bills to incorporate and all were rejected.

The current applications are the first since 1946.

Technically they involve little or nothing in the way of Hutterite expansion. All are existing colonies.

There are now 29 colonies in Manitoba. Thirteen were incorporated by special act of the legislature between 1931 and 1937. Fourteen are applying now. The other two are withholding applications because not fully organized.

Hutterites first came to Manitoba in 1919. Practicing a rigid form of communal life based on religious teaching, most Hutterites are excellent farmers and live largely in self-sustaining communities.

Their expansion and extension of land holdings was so strongly opposed by non-Hutterite neighbors that the legislature reluctantly threw out their bills in 1946.

A special committee was set up to review the Hutterite problem.

After a long inquiry it recommended:

- **Hutterite schools** be required to comply with the curriculum of the education department.
- **Certain sections** of their incorporation acts be deleted, mainly those dealing with power of the majority to expel a member for wrong doing.
- **That another committee** be appointed to work out a formula whereby a member leaving the colony could demand and take with him a proportionate share of its assets.

No such demand has ever been made.

In a few cases members have left a colony.

Although opposing participation in war on religious grounds some enlisted for combat service in World War II.

The enlistments were among those who because of age had not become recognized members of the colony — only those of adult age are admitted. No attempt was made by any of the colonies to get them exemptions.

The recommendations of both committees were carried out.

Hutterite schools are subject to the same inspection as other schools and rank among best in the province.

Another legislative committee was named in 1948 which finally reported there was nothing to warrant any kind of action against Hutterites because of their way of life or their procedure for managing their own affairs.

There the matter rested until 1957. In the interim whenever Hutterites attempted to acquire more land, petitions of protest came to the government.

Finally in 1957 the Hutterites voluntarily agreed with the Union of Manitoba Municipalities to establish not more than one colony in a municipality of six townships or less, or not more than two in a larger municipality, unless with permission of the municipal council.

Land holdings of each colony are limited to 4,120 acres. Average population of a colony is 130, men, women and children. Thus the present Hutterite population is about 3,500.

Why Compulsory Pilotage Would Increase Ship Costs

OTTAWA (Staff) — Canada's strenuous opposition to U. S. proposals for compulsory pilotage throughout the Great Lakes is based on the fear that they would add greatly to Seaway shipping costs.

At present Canada requires Seaway ships to carry pilots on the so-called "restricted" waters — between Montreal and Kingston, and Port Weller and Sarnia.

A U. S. bill which would have required foreign ships using the Seaway to carry pilots at all times failed in Congress last spring.

The U. S. bill wouldn't have added to the costs of U. S. ships using the Seaway because it called only for technical proficiency at levels required from regular officers of U. S. ships.

But it would have required foreign ships, whose officers don't have U. S. qualifications, to engage pilots.

Department of Transport shares the view advanced by the Canadian Shipowners' Association that the U. S. plan would eventually add $3,000 to $5,000 to the costs of a round trip for a foreign-owned ship from Montreal to Chicago.

This estimate assumes that compulsory pilotage would immediately put an enormous premium on the services of Seaway pilots.

Some 85 Canadian pilots were kept busy last season taking ships through the restricted waters. A somewhat larger number of U. S. pilots was also kept busy.

If foreign ships using the Seaway were suddenly required to carry qualified pilots at all times, the demand for pilots would shoot suddenly to many times its present level.

U. S. pilotage associations, chief of which is the Masters' Mates' and Pilots' Association, would be able to achieve easily objectives for which they have been pressing for several years.

The objectives:

- **$75 to $100 for an eight-hour shift.**
- **Pilots required on a ship's bridge at all times.**

At $75 a shift, a foreign ship would pay $225 a day to keep a pilot always on the bridge. At 20 days for a round trip Montreal to Chicago, that's $4,500. If a single pilot's shift cost $100, the round trip would require pilotage fees of $6,000.

Canadian pilots have been more moderate in their demands than their U. S. colleagues.

At present they are employed and paid under two separate schemes.

Montreal - Kingston pilots have organized themselves into the "Corporation of St. Lawrence-Kingston-Ottawa Pilots." Their fees are set and administered by Department of Transport.

Ships using Montreal-Kingston waters pay fees based on draught and tonnage of ships, and time required for passage. A round trip between the two points costs an average freighter of "Liberty Ship" size about $500.

These fees are collected by DOT which turns them over to the pilots' association to be split up among members. A member gets $15,000 for an eight-month season.

Pilots in the Port Weller-Sarnia pilotage district are direct employees of DOT. They are paid $950 a month plus traveling expenses for eight and a half months of the year.

A ship traveling between Port Weller and Sarnia pays a flat $200 each way, plus fees for entering and leaving ports, plus $42.50 a day for the services of pilots carried temporarily outside the Port Weller-Sarnia district.

This district was organized a year ago by DOT. Before this, the $42.50 a day was a standard fee for pilotage in Port Weller-Sarnia waters. Like their U. S. colleagues, pilots in this area had been pressing for $75 a day.

Company Report

Transportation

DETROIT & CANADA TUNNEL CORP., Detroit, Mich., consolidated net profit of $612,185 for year ended Oct. 31, 1959 was 5.2% lower than previous year's $645,785.

Vehicles paying toll through the tunnel totaled 3,091,661, a 1.2% increase over 1958. Bus passengers numbered 3,611,368, an increase of 11.6% from a year ago and extra passengers carried in all vehicles increased 1.3% to 3,296,802.

The final link of the Lodge Expressway was opened in November, 1959. Traffic using the expressway is now only one block from the tunnel entrance.

The company has asked for a 5c increase in fares on company buses. Hearings are to be held Jan. 13 before the Interstate Commerce Commission. Previously, a requested 5c toll increase on cash and commuter cars was disallowed.

CONS. INCOME ACCOUNT

Years Ended Oct. 31:	1959	1958
Net earnings	$1,282,487	$1,337,892
Less: Deprec. & amort.	171,119	167,207
Interest	34,183	39,506
Income tax	465,000	485,400
Net profit	**612,185**	**645,785**
Less: Com. divd.	722,130	722,130
Surplus for year*	**109,945**	**76,345**
*Deficit.		
Earnings per Share and Dividend Record:		
Common	$0.85	$0.89
Paid	1.00	1.00
Shares o/s as at Oct. 31:		
Common, $5 par‡	793,547	793,547
‡Including 71,356 shs. in treasury.		

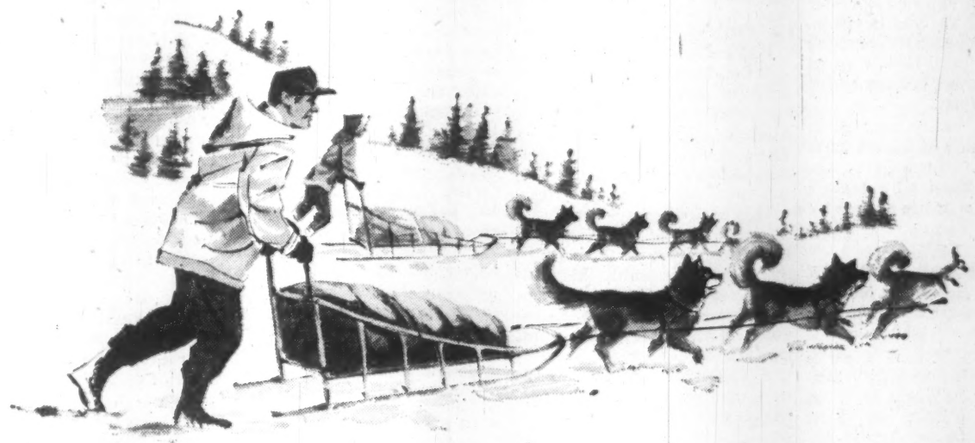
CONDENSED CONS. BALANCE SHEET

As at Oct. 31:	1959	1958
Cash	$214,570	$292,477
Invent. & suppl.	21,227	20,062
Accts., etc., rec.	24,743	36,024
Prepaid exps.	199,525	192,357
Total curr. assets	**460,475**	**541,320**
Munic. bonds	1,267,627	1,268,825
Fixed assets	7,204,475	7,203,884
Total assets	**8,932,577**	**9,014,229**
Total curr. liab.	**390,069**	**552,208**
Bank note pay.	478,584	653,584
Deferred income	40,000	40,000
Reserves	3,576,226	3,410,794
Capital stock	2,979,225	2,979,225
Capital surplus	628,054	628,054
Earned surplus	640,019	749,964
Working capital*	**129,594**	**10,685**
*Excess of curr. liab. over curr. assets.		

PURELY CANADIAN

THE QUEBEC WINTER CARNIVAL

Carnival Time in old Quebec, February 13th to March 1st, is a period of gaiety and fun in the open air. You should try to visit Quebec during Carnival Time.



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Your insurance agent is experienced in protecting your assets. Please consult with him.

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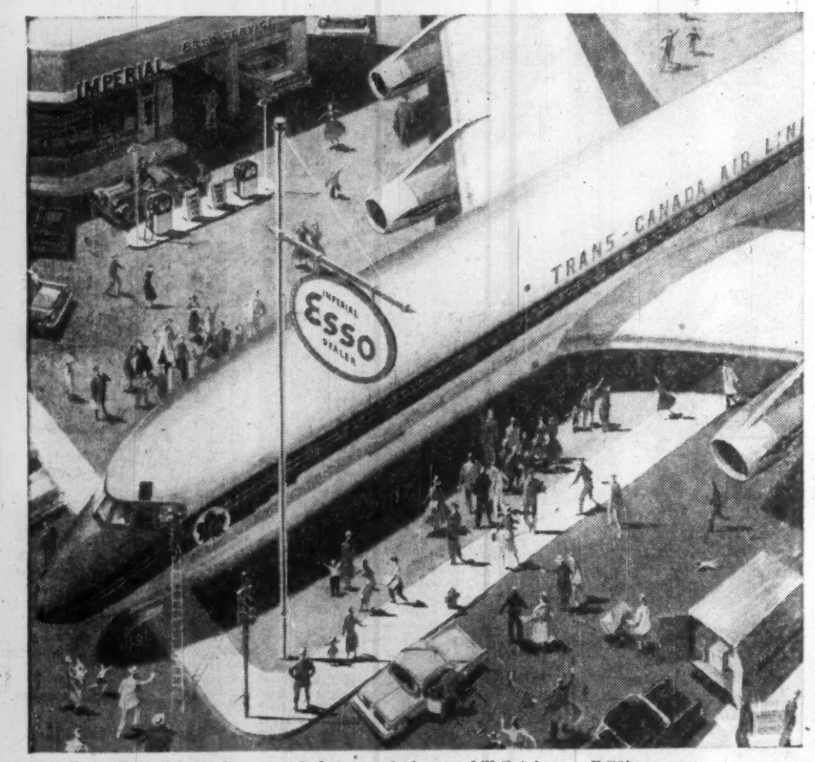
Head Office: 612 Richmond St., London

AGENTS AND BRANCHES THROUGHOUT CANADA

JA5237



You'll certainly drive a long way before you find one of T.C.A.'s new DC8's at an Imperial Esso service station. But they're important Imperial customers just the same.

The jet and the family car— together they mean lower gasoline prices

The new DC8 jets are powered by a special jet fuel, as carefully tailored for its job as the gasoline for your car.

Today gasolines and jet fuels are only two types of a whole range of products made by Imperial from petroleum. These products—over 600 of them—cover everything: gases which are turned into plastics, waxes for all kinds of needs, greases, lubricating oils, fuel oils and asphalts.

This efficiency in getting everything out of every gallon of crude oil is an important reason for lower fuel prices—whether for a DC8, a jalopy or the new family car.

Gasoline is a bargain: in the last five years the average price of things people buy has gone up nearly 16 per cent, while gasoline has actually gone down about half of one per cent.*

*DBS wholesale price index.

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* and practical too! The unit shown sells for less than $250.

OFFICE SPECIALTY

THE OFFICE SPECIALTY MFG. CO. LTD. NEWMARKET, ONTARIO BRANCHES AND FRANCHISED DEALERS FROM COAST TO COAST

Books For Businessmen

CANADA 1980 by Albert A. Shea; McClelland & Stewart Ltd., Toronto; 105 pp.; $2.50 cloth, $1.50 paper.

As he did with the Massey report, Mr. Shea succeeds here in interpreting the monumental Gordon Commission report in the right language, and at the right length, to appeal to the general reader.

The Commission on Canada's Economic Prospects, under Walter Gordon's chairmanship, examined the probable course of our economy until 1980, warned of dangers ahead, recommended counter measures.

This short, easily read guide to the essentials of the commission's report will help to acquaint Canadians with today's economic facts of life as seen by experts.

THE SEARCH FOR STABILITY by Charles Schwartz; McClelland & Stewart Ltd., Toronto; $6; 252 pp.

This is the first in a series entitled Contemporary Saskatchewan. The Wheat Province certainly must have one of the continent's most potentially unstable economies. This makes it natural for it to be so concerned with achieving more stability — which it has done to some extent by greater industrialization, additional mining and some farm diversification.

Basically, Saskatchewan's search continues primarily to be a quest for agricultural stability. This detailed book makes it quite clear by implication that in the hunt for stability and security — which, we're told, characterizes North Americans generally — farmers face a tougher problem than almost any other major group.

IN FRIENDLY CANDOR, by Edward Weeks, Little, Brown & Co., Toronto; 301 pp.; $4.50.

Since 1938 Mr. Weeks has been editor of the distinguished Atlantic magazine and so, ex officio, a member of the intellectual brahminhood in Boston, one-time Athens of America.

This book of essays deals with his methods and experiences as an editor, some of the authors in his Atlantic stable, his holiday pleasures, and his opinions, sometimes controversial, on the manners and mores of his country.

A chapter of special interest to Canadians gives a personal sketch and an estimate of Mazo de la Roche whose literary fame began when, with "Jalna", she won an Atlantic novel prize of $10,000 in 1926. Underrated by the highbrows of her own country, Miss de la Roche's books have circulated around the world in 16 languages and millions of copies. Weeks compares her to Galsworthy and Trollope.

He has a wise, penetrating mind and a practised style. This is a civilized and pleasant book.

MATHEMATICAL PUZZLES OF SAM LOYD, edited by Martin Gardner; McClelland & Stewart Ltd., Toronto; 167 pp.; $1.10.

Puzzle buffs should delight over this selection of 117 of the most ingenious brain teasers devised by master puzzle innovator Sam Loyd.

During his lifetime (1841-1911) Loyd devised literally thousands of puzzles, many of which sold in the millions of copies. A few, such as the "14-15" puzzle, reached the status of a national craze.

This selection by science writer Martin Gardner offers some of Loyd's best puzzles, carefully edited for clarity and accuracy, but in such a way as to leave unharmed the unique style and historical flavor of the originals.

THE STRANGE ONE, by Fred Bodsworth; Dodd, Mead & Co., Toronto; 400 pp.; $5.50.

This is the second novel by a well known Canadian writer. Most of the action takes place in the flat country along the south shore of James Bay, with which Mr. Bodsworth seems to be thoroughly familiar.

It is the story of a beautiful Indian girl who tries to move into the white man's world, and a storm-blown Scottish Barnacle goose forced to join a flock of Canada geese.

In neither case is adjustment to an entirely new life and environment either simple or happy.

CANADA YEAR BOOK 1959; Dominion Bureau of Statistics, Ottawa; 1,286 pp. $5.

The familiar blue book, in its latest edition, contains a wealth of words, statistics and maps. No one is likely to read all of this comprehensive study of Canada —but there is much here for any reader, no matter how special his interests.

A must for the businessman's reference shelf.

THE MYSTERY OF LORD KITCHENER'S DEATH by Donald McCormick; McClelland & Stewart Ltd., Toronto; 223 pp.; $3.75.

Lord Kitchener was drowned in 1916 when the cruiser HMS Hampshire sank off the coast of Scotland. Rescue operations were bungled and extraordinary secrecy was attached to the report that followed an enquiry. From these two circumstances arose a tangle of rumors about Kitchener's death.

McCormick reports every detail and checks every rumor, but no significant disclosures ensue.

CANADIAN INCOME TAX FOR ACCOUNTANTS by W. G. Leonard; CCH Canadian Ltd., Toronto; 451 pp. $6.

This is the second edition of a text, first published in 1957, for businessmen and students. The new edition incorporates statutory amendments of 1957, 1958 and 1959 and results of significant income tax decisions.

Prof. Leonard (Queen's) has succeeded in interpreting, in simple English, the often turgid language of income tax law.

HERITAGE OF THE MIDDLE WEST, edited by John J. Murray; Burns and MacEachern, Toronto, $5; 303 pp.

That strange creature, the U. S. middle-westerner — dynamic, often self-centred and isolationist—may seem not quite so strange after a reading of this compilation.

It is in a dozen parts, each by a different but prominent student of life in the U. S. These 12 gentlemen cover everything from Red Indians to literature. Some obviously believe, with de Tocqueville, that the Mississippi valley is the "most magnificent dwelling place prepared by God for man's abode."

CABMA REGISTER OF BRITISH INDUSTRIAL PRODUCTS FOR CANADA; British Trade Centres, Toronto, Montreal, Vancouver; 650 pp.

This is the seventh annual edition of a directory well designed to ease the flow of trade between Canada and the U. K.

In the Buyers' Guide section, more than 3,000 U. K. products for Canadian industry are listed alphabetically, with suppliers' names given under each heading. French equivalents are set out in a separate glossary.

Among the other five sections is a directory of nearly 4,000 U. K. firms, with details of their Canadian distribution arrangements.

CANADIAN HANDBOOK OF PENSION AND WELFARE PLANS, 1959, by William M. Mercer; CCH Canadian Ltd., Toronto, or Commerce Clearing House Inc., Chicago; 407 pp.; $7.50.

This new volume incorporates all legislative changes, affecting private pension and welfare plans as well as federal and provincial welfare plans, which have been made since the 1956 edition appeared.

Additions also include sections covering provincial hospital insurance plans, pension plans for the self-employed, investment of pension funds, and simple actuarial tables.

Other chapters cover pension plans, group life insurance, sick pay and medical plans, profit sharing and stock option plans, workmen's compensation and other fringe benefits.

THE WAR LOVER, by John Hersey; Borzoi Books, Toronto; 404 pp.; $5.50.

The jacket bills this book as one which "in the longer view . . . may come to be regarded as the great and ultimate anti-war novel of our time".

There is no doubt that the book is no sales piece for war. The story of the war lover, pilot Buzz Marrow of a U.S. Flying Fortress squadron, and some of the other members of his crew, illustrates some of the highly unpleasant things that war can do to people.

On the other hand, it tends to overstate the frictions that develop in a wartime fighting unit. One of the remarkable features of service life is the way in which men of vastly different backgrounds, education and ethical standards manage to work together in the shadow of danger.

The suspense builds up well, despite the sometimes bewildering number of flashbacks during the course of the final fateful flight.

PROBLEMS AND PRACTICES OF DEVELOPMENT BANKS by Shirley Boskey; John Hopkins Press, Baltimore, Md.; 195 pp.; $3.50.

A general survey of a type of financial institution about which little has been written previously. During the past 16 years, some 80 development banks throughout the world have become members of the World Bank.

ADVENTURES OF A BIOGRAPHER, by Catherine Drinker Bown; Little, Brown & Co., Toronto; 235 pp.; $4.50.

Biography, in the hands of maestros like Lytton Strachey, Hesketh Pearson and André Maurois, has become a distinct branch of literature and full-time occupation; and Mrs. Bowen, an American of taste and learning, is one of the best in the business.

She has written lives of Tchaikowsky and the Rubinsteins (she was trained as a musician), John Adams, Chief Justice O. W. Holmes and Sir Edward Coke, the mighty Elizabethan lawyer and exponent of the common law.

A special excellence of these books is that Mrs. Bowen explored the places, the very houses and rooms, where her subjects lived and worked. This gives her readers a peculiar sense of being eye-witnesses.

In these "Adventures" she does not discuss the art of biography (the subject of another of her works) but her journeys and encounters in search of material. Her style is agreeable, she has a sense of humor and the book is pleasant if unexciting reading.

SKILLFUL DRIVING, by Maxwell N. Halsey; Doubleday, Toronto; 192 pp.; $4.50.

A collection of simple, sensible solutions to "the 200 most crucial situations of modern traffic", told in cartoons and captions.

There may not be much here that good drivers don't already know — but there's a great deal that every driver, good or bad, needs to be reminded of frequently.

ANNOUNCEMENT

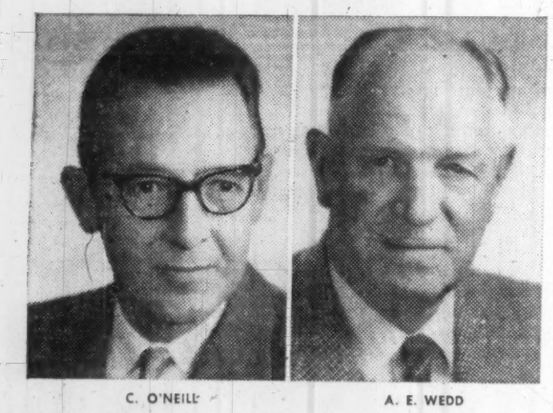
THREE NEW ROYAL BANK DIRECTORS ELECTED

A. L. PENHALE ROY H. THOMSON H. G. WELSFORD

The Royal Bank of Canada has announced the election to the Board of Directors of A. L. Penhale of Thetford Mines, Que., Roy H. Thomson of Toronto, Ont. and London, England, and H. G. Welsford of Montreal, Que. Mr. Penhale is President and Managing Director of Asbestos Corporation Ltd. Mr. Thomson is Chairman of the Thomson Newspapers Limited, Toronto; Thomson Newspapers Ltd., London, England (the former Kemsley group of newspapers); The Scotsman Publications Ltd., Edinburgh; Scottish Television Ltd., and a number of other publishing and broadcasting concerns in Canada, the United States and the United Kingdom. Mr. Welsford is President and a Director of Dominion Bridge Co. Ltd. and President and Managing Director of Dominion Engineering Works Ltd.

ANNOUNCEMENT

ROSCO APPOINTMENT



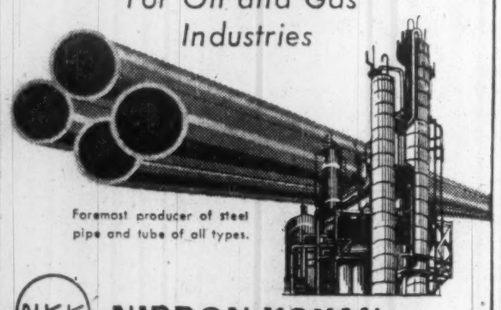
C. O'NEILL A. E. WEDD

H. G. Hanneman, Vice-President and Managing Director, Rosco Metal & Roofing Products Ltd., announces the appointment of C. O'Neill as Manager of the Company's Ottawa branch.

Mr. O'Neill succeeds Mr. A. E. Wedd, who, after nearly fifty years of service, is retiring from active management. He will continue to serve the Company in the capacity of consultant.

Pipe & Tube

For Oil and Gas Industries



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ANNOUNCEMENT

RICHARDS-WILCOX APPOINTMENT

K. G. BENTLEY

The appointment of Mr. Kenneth Bentley to the position of Branch Manager, Toronto Office, succeeding Mr. K. M. Taylor, has been announced by Mr. John D. Judge, President of Richards-Wilcox Canadian Co. Ltd.

Mr. Bentley, who graduated from the University of Toronto with a B.Sc. in Engineering, joined Richards-Wilcox in 1950 as a Sales Engineer.

Mr. Taylor's resignation terminates 39 years of continuous service with Richards-Wilcox, during most of which time he was located in the Toronto territory as manager.

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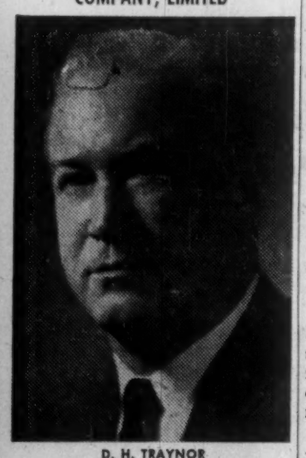
ANNOUNCEMENT

EXECUTIVE APPOINTMENT RAYMOND INTERNATIONAL COMPANY, LIMITED



D. H. TRAYNOR

Mr. W. C. Pietz, President of Raymond International Company, Limited, with Head Office at 1900 Yonge Street, Toronto, announces the appointment of Mr. Donald H. Traynor as Vice President.

Mr. Traynor has been employed by the Foundation Company of Canada as Project Manager for the past four years.

Since leaving the University of Toronto 28 years ago, Mr. Traynor has been in the engineering and operating phases of Heavy Construction, Mining, Oil Refining, Pulp Mill Construction, and Marine projects. While working in these fields he travelled extensively from Coast to Coast and in the Canadian Northland.

Mushrooms As Tricky As Orchids

If you think raising mushrooms might be a simple sideline, read before you invest . . .

By FRANCES BALDWIN

Although most Canadians appreciate mushrooms on their steaks or in soups or specialty dishes, few realize that $4 million of the spongy plants were grown in Canada in 1958.

Even at that, we didn't completely supply our own market. We also imported mushrooms from Hong Kong, Chile and Japan.

The mushroom industry, which started in Central Canada 50 years ago, has spread across Canada.

There are growers in western Quebec, central Ontario, the Maritimes, Manitoba and British Columbia.

Production over the last decade has doubled, even though growing mushrooms takes as much know-how and capital investment as growing orchids.

Crops of mushrooms are planted in the autumn and harvested in winter and spring.

Production is measured in pounds per square foot rather than in tons per acre.

Mushrooms are grown in the dark and to produce a good crop, low temperatures rather than summer heat are an absolute necessity.

Mushrooms are grown in specially constructed houses about 60 ft. by 20 ft., and containing two tiers of beds with an alley between.

Each tier is six beds high, giving a total bed surface of 4,000 sq. ft.

Many houses are built as doubles, with each house wide enough for four tiers of beds instead of two.

Mushroom growing is not a simple matter of planting a seed to produce a plant. The mushroom, being a fungus, produces spores, not seeds.

These in turn must be induced to produce mycelium or spawn, a threadlike mass which under proper conditions produces mushrooms.

But before the grower is ready to plant his spawn, he must prepare his seed bed.

In the past, mushrooms have been grown in a compost of horse manure, but synthetic compost of hay and chemical ingredients is now becoming popular.

The compost has to be turned and watered several times over a 14-18-day period, so that bacterial organisms present break down the compost and condition it for the growth of mushrooms.

In the second phase, which lasts between four and eight days, the compost is placed on the beds in the mushroom house where it undergoes a period of pasteurization.

During this "sweat out" period, the mushroom houses are kept tightly closed. Doors are opened at intervals to admit a fresh supply of oxygen, but the heat generated by the bacterial action of the compost, in combination with the moisture, brings about a final conditioning of the compost as well as killing off any insects or molds that may have come into the mushroom house in the filling process.

In the third stage, the spawn — the propagating material prepared from the spores of the mushroom by pure culture spawnmakers — is broadcast over the surface of the beds.

It is allowed to run in the bed for two to three weeks under controlled low temperatures and then an inch of "casing" soil is spread over the bed.

The final stage, starting with the casing, runs about 21 days at which time the mushrooms appear. Mushrooms appear in somewhat rhythmic cycles called "breaks".

A grower's largest production is obtained from the first two breaks, but mushroom beds properly adjusted for moisture and low temperature will continue to produce mushrooms for about three months.

But growing the crop is only part of the job. After that, it has to be graded, packed and distributed.

Canadian growers pack and ship fresh, canned and dehydrated mushrooms.

Speed is essential in marketing the fresh crop, since packaging and grading operations must be completed in about five hours so that delivery can be made the same day for sale at the retail level within the next two days — the normal shelf life of mushrooms.

Some growers use a three-stage washing operation before their mushrooms are marketed. This is accomplished by means of three side by side, stainless aluminum tanks.

The tanks contain an anti-oxidant and the mushrooms are dipped by hand in aluminum baskets. The first wash is for cleansing; the second for sealing, and the third for rinsing.

After the three washes, the mushrooms are sprayed with wax.

The washing phases remove any residue of grower chemicals; make the mushrooms look more attractive; and point up their distinctive texture and surface feel.

The mushrooms are then cooled and dried in the packaging room for about 15 minutes and moved into the flash cooler where their temperature is brought down to 32 deg., a reduction from the 68 deg. at the first stage of the washing operation. The whole cycle takes about an hour and a half.

The mushrooms are then moved into the packing room where they are graded, sorted and packed by hand.

They are sized into extra large, specials, fancies and buttons, and then loaded into refrigerator trucks for transport. Air express takes some shipments to more distant customers.

The canned mushrooms are mostly water-packed, with some being canned in a cream gravy. Besides the fancy grades, there is a cheaper pack of mushroom stems and pieces.

Studie Starts Service-Only Dealerships

Service-only dealerships, new on the Canadian automotive scene, have been established by Studebaker-Packard across Canada during the last nine months.

Most of them have been in the western provinces.

Where there is a distance of 50 mi. or more between major centres where regular dealers are established, S-P looks for a general repair shop to become a recognized service dealer.

Before he can hang out the S-P shingle, the proprietor must satisfy the company's service representative that he has adequate facilities and skilled mechanics.

He must agree to carry a minimum stock of S-P factory parts and a minimum inventory of special tools. He also must agree to give warranty service on new cars.

About 50 of these service dealers have been signed. Most of them act as "bird dogs" for the sale of S-P cars in their areas, on behalf of a dealer in a larger centre.

A few, after a time as service dealers, have applied for a full franchise.

Tor.-Dom. Bank Makes Promotions

R. A. BLAKLEY, accountant, Davenport & Dovercourt Rds. branch, Toronto, to be accountant, Yonge & Teddington Park branch, Toronto.

J. C. ARMSTRONG, accountant, Yonge & Teddington Park, to be attached to head office relief personnel.

G. J. YUNGBLUT, accountant, Shelburne, Ont., to be accountant, Copper Cliff Ont.

L. G. FERGUSON, accountant, Wyoming, Ont., to be accountant, Shelburne, Ont.

H. G. MOORE, accountant, Copper Cliff, Ont., to be accountant, Wyandotte & Ouellette, Windsor, Ont.

E. H. THOROUGHGOOD, accountant, Estevan, Sask., to be accountant, Steinbach, Man.

M H S McKAY, accountant, University & King, Toronto, to be accountant, Queen & Kenilworth, Toronto.

W. H. McNAIR, assistant accountant, Queen & Ossington, Toronto, to be accountant, University & King, Toronto.

J. H. NICHOLLS, methods officer head office, to be accountant, Richmond Hill, Ont.

C. H. CAUGHLIN, 1st assistant accountant, 1822 Scarth St., Regina, Sask., to be accountant at that branch.

N. J. ELLIOTT, assistant accountant, St. Catherine & Guy, Montreal, to be accountant, Beaver Hall Hill, Montreal.

Hosiery Prices Won't Drop With Slices in Nylon Yarn

MONTREAL (Staff) — Despite almost 20% drop in the cost of 15 denier nylon used in hosiery manufacture, don't look for any reduction in the cost of milady's walking sheers.

The reason: When you work it all out, the nylon yarn price cut recently instituted by **Du Pont Co. of Canada** amounts to only 0.6c per stocking.

In addition, hosiery makers have been anticipating such a move for several months. Any effects have long since been discounted.

The reduction announced by Du Pont is the latest in a series of price cuts in the nylon field in recent months.

In the wake of comparable reduction in the U. S., Du Pont of Canada cut 15 denier nylon wound on bobbins for the hosiery trade from $5.60 lb. to $4.50 lb., effective Jan. 4.

Company said the U. S. reductions forced them to follow.

In the U. S., it's reported, pressure from imported yarn forced the reductions.

Late last year (FP, Dec. 5) nylon makers in both U. S. and Canada pared $1.10 lb. off the price of 15 denier nylon wound on beams.

In this form the yarn is used largely by the women's wear industry for manufacture of textiles such as tricot blouse and underwear fabric.

Ever since, hosiery makers have been expecting a similar cut.

For hosiery makers, the reduction means lower cost for somewhat less than half the raw materials that go into a stocking.

Foot and top of the stocking are customarily made from heavier 40 to 50 denier nylon on which there have been no reductions.

"It takes as much if not more nylon by weight to make the foot and top than it does the 'leg' that's in between," a hosiery maker laments.

He adds that since demand for nylon in the 40-50 denier appears firm, a price cut in these ranges appears unlikely for the present.

At both mill and retail levels, price of full fashioned and seamless hose remains very weak. One maker estimates mill prices of both have dropped about 50c dozen in the past year.

At retail the full fashioned stockings that sold for about 59c pair in early 1959 now bring 49c—and in some cases are even being offered at three for $1.

Seamless hose retailing at 89c pair a year ago are now generally offered at 79c.

Weak price conditions are expected to continue this year.

Some industry officials expect profit margins on seamless hose — which have been considerably more substantial than those of full fashioned—to narrow in 1960 as more manufacturers swing to production of this kind of stocking.

Toward the end of 1959 total Canadian production was running 60% to 65% seamless and the balance full fashioned.

In this respect we've moved ahead of the U. S. which started the seamless trend in North America a few years ago.

J&H INSURANCE BROKERS

Serving Canadian Business For Over 50 Years

JOHNSON & HIGGINS
(Canada) Limited
INSURANCE BROKERS—AVERAGE ADJUSTERS

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MONTREAL · WINNIPEG · VANCOUVER
Twenty-five Offices Throughout the World

Mel Dobrin, Director of Store Operations, Steinberg's Limited, Montreal, Que.

"Moore forms help us speed supermarket check-outs"

STEINBERG'S NEW 'CAR ORDER' SYSTEM MEANS FAST AND EFFICIENT SERVICE

From carriage to counter to customer's car is a faster, smoother trip for food orders at Steinberg's supermarkets. The big advantage is customer service. Now the customer's complete order is ready for her at the car-order depot in a matter of minutes. There is never any delay at the check-out counter.

The system is based on a specially designed claim-check form. Each of its many parts has a large printed number. As 'car orders' of food are packed, one part of the form is detached and stapled to each carton. This saves precious seconds in marking the cartons. It makes it easier to keep the order together en route to the pick-up depot. It makes identification fast and positive. The form is a Moore Unitset —Steinberg's control in print.

"The Moore man designed this form for us—and it gives us greater efficiency," says Mel Dobrin, Director of Store Operations for Steinberg's. Whatever your business, whether you use typewriters or computers for paperwork, the Moore man can help you get the control you need. Get in touch with him at the nearest Moore office.

MOORE BUSINESS FORMS LTD.*—856 St. James St. West, MONTREAL · 7 Goddard Avenue, TORONTO 15 · 711 Erin Street, WINNIPEG · 296 12th Ave. East, VANCOUVER. *Over 300 offices and factories throughout Canada, U. S., Mexico, Cuba, Caribbean and Central America.*

* *Division of Moore Corporation, Limited*

Build control with

MOORE BUSINESS FORMS

Industrial Growth

Manufacturing plants new to Canada; expansions of existing industry across the nation.

Lachine, Que.

Mussens Canada Ltd. has just opened a $1.5 million plant at Lachine, Que., for sales and servicing of heavy industrial equipment.

Plant provides 135,000 sq. ft. of floor space on a land area of 575,000 sq. ft. About 325,000 sq. ft. of this land area is devoted to display and storage yards.

Plant employs 375 people and is head office for the company's six branches in Toronto, Halifax, Fredericton, Sept Iles, Quebec and Rouyn.

Plant is located at 1100 Norman St., Lachine, in a mushrooming industrial area referred to as the Golden Triangle by real estate men.

Design and construction was handled by **Quebec Industrial Leaseholds Ltd.**

Hamilton, Ont.

Smart-Turner Machine Co., Hamilton, Ont., has affiliated with **Hamilton - Thomas Corp.**, Hamilton, Ont.

Established 47 years ago, the Smart-Turner firm manufactures centrifugal and reciprocating pumps and accessories, together with metal drums and similar containers.

Hamilton-Thomas has four operating subsidiaries in the U. S. which produce a wide range of products from steam condensers and pumps, nuclear components for stationary power plants, liquid metal heat exchangers and automatic regulation valves.

Both companies, said W. A. T. Gilmour, president of Smart-Turner and L. Q. L. Thomas, president of Hamilton-Thomas, will mutually benefit from this affiliation.

Mr. Gilmour will continue as president of Smart-Turner and the other executives will retain their respective offices. Canadian facilities will be gradually expanded to permit manufacture of Hamilton - Thomas products.

A major investment is retained by the original stockholders so that they can participate in Smart-Turner's anticipated growth.

Montreal

New buildings comprising 40,000 sq. ft. have been added to an existing 50,000 sq. ft. to house the centralized engineering division of **Joseph Robb & Co.**, Montreal, and associated firm **Anchor Packing Co.**

The completed plant is at 5575 Cote St. Paul Rd., Montreal. Machinery from the old Namur St. plant will make up part of the manufacturing facilities, plus installation of new and additional machinery.

The new manufacturing facilities will enable Joseph Robb and Anchor Packing to manufacture a wide range of products ranging from packings, gaskets and rings, couplings and laminated plastics to rubber molded products.

A new drafting room combined with a new tool, die and mold manufacturing unit will provide rapid design and rapid delivery to the Anchor Packing and Joseph Robb company plants.

These facilities are also used for the design and construction of the special machines required by these companies.

New rubber mills and extruder along with the research and control laboratory will also be housed in the new buildings.

Sales, executive and accounting offices will be centrally located in a building adjacent to the manufacturing division. This will allow faster service.

Scarborough, Ont.

Frederick Parker (Canada) Ltd., has completed a new head office and warehouse facilities at 441 Ellesmere Rd., Scarborough, Ont. Company is a subsidiary of **Frederick Parker Ltd.**, Leicester, Eng., manufacturer of construction equipment.

Company started operations in Canada seven years ago, starting with the Spotmix mobile asphalt plant, has increased products offered in the Canadian market to include:

Cascade mobile washing plants producing from 20 to 200 tons of washed aggregate per hour; the Starmix line of mobile and stationary asphalt plants producing 10 to 180 tons per hour; and the recently introduced new line of Crush Ranger-Gravel Ranger mobile crushing plants.

Much of this equipment, says the company, has been specifically designed to meet Canadian requirements.

The central warehouse depot will supplement stocks held by distributors in all provinces.

British Columbia

News of expansion in British Columbia:

Coast Steel Fabricators Ltd., Burnaby, has completed a $300,000 steel fabrication plant which will allow an increase in volume.

Liquid Carbonic Canadian Corp., has completed a $130,000 plant in Burnaby for production of industrial gases.

Thermolite Plastics Ltd., has completed a $1.5 million expansion which provides for planned production of 30 million ft. of expanded polystyrene insulation per year and 3,500 boats, from 10 ft. to 20 ft. in size, as well as flotation material and containers.

Projects under way:

Cummins Diesel Sales of B. C. Ltd., Burnaby, has a new $345,000 diesel engine and truck service and maintenance shop under way to replace its present shop.

Yarrows Ltd., Victoria, is spending $162,000 for a new berth to accommodate vessels up to 350 ft.

Midwestern Ontario

Canada Barrels & Kegs Ltd., Waterloo, Ont., will establish a new manufacturing division to be known as **Canbar Marine Co.**, at a cost of $250,000.

This will involve $250,000 expenditure by the company for expansion of its present facilities and installation of added equipment.

Move is result of negotiations with **Crestliner Inc.**, U. S. manufacturer of outboard boats. Fibreglass Crestliner boats should be coming off the assembly line in February with aluminum models following in June.

Present employment at Canada Barrels & Kegs will be nearly doubled to around 240 people, Mid-Western Ontario Development Association, Stratford, Ont., reports.

Meyer Industrial Distributors Ltd., Waterloo, has now opened its new $100,000 13,000 sq. ft. plant. Distributor of industrial supplies, company handles a large variety of products ranging in size and cost from an $8,000 steel milling machine to small screws.

Preston: Tru Forge Ltd. has started operations in a 12,000 sq. ft. plant on Bishop St. Company will produce precision forgings of high alloy metals for use in aircraft missiles and rockets. **National Tool Distributors** and **Canadian Magnesium** are both building additions.

Kitchener: One of Ontario's largest poultry processing plants, **Tend - R - Flesh Turkey Ltd.**, has been sold to **United Co-operatives of Ontario.** Plant has an annual sales volume of around $4 million. **Spae-Naur Products Ltd.**, manufacturer of automotive industrial fastenings, rubber grommets and extrusions, is building a substantial addition to its Victoria St. plant.

Galt: Allen - Bradley, manufacturer of automatic electrical motor controls, is building a 40,000,-sq.-ft. addition to its plant.

Toronto

Harold P. Cowan Importers Ltd., has moved into a new 26,000 sq. ft. office and warehouse building on Scarsdale Rd., Don Mills.

Architect was **Herbert Swanson** and **Toronto Industrial Leaseholds (1957) Ltd.**, was general contractor.

This is the second major expansion for the firm within 10 years.

Company is importer and distributor of biscuits, confectionery, powdered drinks, etc. A manufacturing subsidiary produces household aluminum foil, shelf and lining papers, gift wraps.

Influx of new Canadians was said by company executives to be the main factor responsible for the rising sale of imported confectionery lines.

Richards - Wilcox Manufacturing Co., Aurora, Ill., has bought a 6½-acre site in Brampton on the south side of Highway No. 7 between Kennedy and Hansen Rds., Metro Toronto Industrial Commission reports.

A wholly-owned subsidiary of the company will be formed shortly and tentative plans for a manufacturing plant this year are under consideration.

The company manufactures materials handling equipment, conveyors, industrial door apparatus such as hangars and tracks, and partition doors.

Carrington Distillers (Ontario) Ltd., has started bottling operations at 39 Newcastle St., Mimico. Company is a subsidiary of **Alberta Distillers Ltd.**, Vancouver.

The new Mimico bottling and warehousing facilities contain about 115,000 sq. ft. and serve the Eastern Canadian market area.

Dole Valve Co. of Canada is now in production of water valves for the appliance industry in an 11,000 sq. ft. plant and head office at 1490 Speers Rd., in Trafalgar township. Additional controls and valves will be added to the company's line of products.

The Canadian company, complete with manufacturing, selling and servicing facilities, is a subsidiary of **Dole Valve Co.**, Chicago.

Parmatic Engineering Co., a wholly-owned Canadian company, has established plant and head office at 128 Judge Rd., Etobicoke Township. Previously located in Owen Sound, Ont., the company became known as a designer and manufacturer of specialized aircraft accessories, such as pressure-operated switches, filtration equipment and fire detectors.

New plant contains 7,000 sq. ft. and is equipped with a machine shop where the limited production of aircraft components along with commercial items on a contract basis continues.

Company is also entering the industrial field, offering a wide range of filters for many applications.

Polybottle Ltd. has leased an adjacent 12,000 sq. ft. building at 116 Tycos Dr. and will expand it to 24,000 sq. ft. The company began operations in a 6,000 sq. ft. building in 1956. It produces blown polyethylene containers, for drug, pharmaceutical and food packaging.

New extension is mainly for expansion of output of liquid detergent soap containers.

F. Lepper & Son Ltd., Toronto, is planning to move to larger premises now under construction at 87 Northline Rd. Company operates a machine shop, specializing in machine repairs, and hydraulics manufacturing.

With production space doubled to 10,000 sq. ft., and increased equipment facilities, the company plans to add municipal water works components to its production.

Plastoid of Canada, subsidiary of **Plastic Products Co.**, Detroit, Mich., has constructed a 2,000 sq. ft. addition to its plant at 45 Densley Ave.

Addition will be mixing room for adhesives, glazing and caulking compounds.

Tek Plastics Ltd. has completed an 8,000 sq. ft. addition to its plant at 150 Rexdale Blvd., the company's second expansion since 1953. The extra space will facilitate production of the company's plastic face, internally-illuminated signs and lighting fixtures.

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SINK - RANGE REFRIGERATOR

- National Design Award Winner in 1955 & 1957
- Stainless Steel Sink with extra work space
- 3 Burner Electric Range
- Full-size Oven for Baking-Broiling
- 5½ cu. ft. Refrigerator with 25 lb. Freezer and inner door shelves
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One of 16 SPACE-SAVING models of clever Refrigerator-Range-Sink combinations.

Free booklet showing full line for Home—Office.

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ANNOUNCEMENT

ROYAL TRUST APPOINTMENT

CARMAN A. JERRY

Carman A. Jerry, whose appointment as an Assistant General Manager of The Royal Trust Company has been announced. Appointed Supervisor of Business Development for the Company in 1955, Mr. Jerry continues to be responsible for this phase of the Company's operations.

Now! A money-saving Six that acts like an Eight!

A quality product of Chrysler Engineering — Dodge Dart Seneca Club Sedan

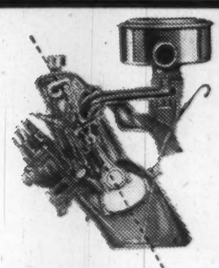
More "go" on less gas! That's the story on Dodge Dart's super economy six with the *Economy Slant!*

Now you don't have to sacrifice power to get gas economy. Dodge engineers have developed a super economy six cylinder engine that out-classes any other six in the industry. It's an engine that gives you an extra hour's mileage bonus on every tankful of gas. This is the *economy slant* that makes Dodge Dart the best buy in the low price field for 1960. New inclined power-line design, overhead valves, high efficiency compression ratio make this the liveliest, thriftiest six in any full-size car on the road. Unique inclined block design allows semi-ram tuning of fuel induction system. Special full-flow intake manifold provides even distribution of fuel to all cylinders. Special high-efficiency cam puts the torque where it belongs—right down in the normal driving ranges. This is the first new "Six" in the low price field since 1955. There's nothing like it on the road. Drive a Dodge Dart "Six" . . . and see for yourself. There are mighty V-8's in the Dodge Dart line too!

Visit your local Dodge-De Soto dealer's today . . . *look* at Dodge Dart's new engine and you'll *see* the difference. Drive a Dodge Dart and you'll *feel* the difference.

Silence with strength! That's the story on "UNIBODY"... another Dodge Dart First!

Revolutionary, one-piece "Unibody" construction that combines body-and-frame in a single fortress of steel . . . and does away with squeaks, rattles, and rust. Drive a Dodge Dart today . . . and discover what the solid silence of "Unibody" construction can mean to you!



New Super Economy Six is Slanted to Squeeze Extra Miles Out of Every Gallon of Gas!

Look under the hood! Notice how this completely new six cylinder engine is slanted a full 30 degrees!

This is called the *Economy Slant.* It lets this modern engine *breathe* better, *breathe* deeper . . . to deliver V-8 "go" at six cylinder savings. And that's not all! *Every* Dodge Dart engine (and this includes the Eights) features revolutionary *Free Flight Power* Mountings! The engine is actually *spring-mounted* . . . floats freely in space to isolate engine noise and vibration. You get the *power* but not the pulsation.

'60 DODGE DART

IN 3 DASHING NEW SERIES — SENECA • PIONEER • PHOENIX

Dodge Dart, one of the *Fabulous Sixties* from Chrysler of Canada

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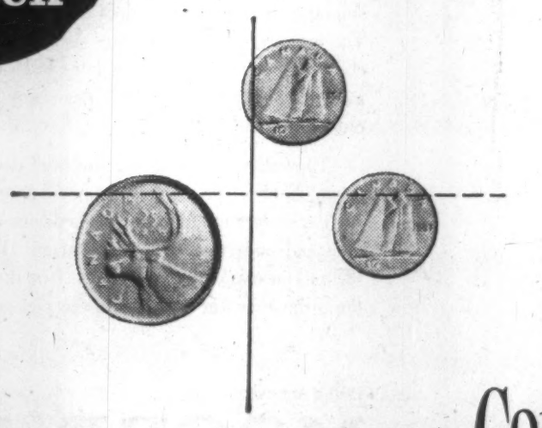

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For 20¢ a week, your family gets double or triple payment in case of accidental death. You also get valuable protection against accidents resulting in the loss of limbs and eyes.

THE TOTAL DISABILITY BENEFIT

For 25¢ a week, you can provide for a regular monthly income after 6 months total disability. You are protected against loss of income while suffering from any major illness or accident and Confederation Life keeps your insurance in force without premiums!
Ask the Confederation Life man how you can obtain these two low-cost benefits.

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Save time and money with Confederation Life's new "Pay-O-Matic" Plan. Ask for details now.

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How Atom Men Defend Canada's Nuclear Program

Officials of **Atomic Energy of Canada Ltd.** took full opportunity of the first Canadian conference on uranium and atomic energy in Toronto last week to defend their program of nuclear power development.

"We are not content to say merely that the heavy water plant is best for Canada," said Dr. G. C. Laurence, AECL's director of reactor research and development.

"We think it is to be preferred for most countries.

"Even in the U. S., where financing practices are against it, we would not compare the heavy water plant unfavorably with any other kind of large nuclear power station. . . ."

Dr. J. L. Gray, president, AECL, said he was sure the government corporation's program is "the wisest and most prudent one for Canada."

"In this view our expert friends in other experienced countries such as France, the U. K. and the U. S. concur."

"No country and no person knows with any certainty what type of nuclear power plant will ultimately prove to be most attractive economically for any specific purpose or in any geographic locality.

"The answer can be found only after years of operating experience with different types under a variety of circumstances.

"In Canada in 1960, considering our experience and natural resources, all the officials and directors of AECL are firmly convinced that our best prospect is to investigate thoroughly by demonstration and full-scale plants the economic and technological advantage of heavy water reactors," he said.

AECL has been under attack recently.

Consulting engineer Winnett Boyd has advocated development of other types of reactors than heavy water (**FP**, Oct. 24, 1959).

Dr. John Davis, director of research at British Columbia Electric, calls for a uranium enrichment plant (**FP**, Nov. 21, 1959).

Dr. Laurence used a comparison of seven different kinds of nuclear power stations, now being developed in the U. S., to support the stand of AECL.

In this comparison, Dr. Frank Pittman of the U. S. Atomic Energy Commission, estimated what he expected the operating costs of these seven kinds of plants would be in 1970 assuming reasonable progress in development.

His estimate of the cost for heavy water reactor, as revised, was 8.02 mills per kwh. The other six were between 7.1 and 7.8.

"Dr. Pittman's figures are based on costs and conditions that prevail in the U. S., which are very different from those in Canada," said Dr. Laurence.

"First, the U. S. AEC sets the fixed charges on capital investment at 14% per annum whereas the corresponding costs for Ontario Hydro would average about 7%.

"Secondly, the AEC assumes $40.50 for the cost of one kilogram natural uranium oxide while we are paying — actually paying — about $25.

"Thirdly, in the U. S. plants, the plutonium produced in enriched uranium fuel can be sold back to the government at $12 a gram, less about $1.50 per gram processing cost, while our estimates make no credit allowance for low grade plutonium because we will soon be embarrassed by a surplus of this material obtained as a by-product which we cannot use economically and which will only present to us a storage problem.

"All three of these differences make the heavy water reactor more attractive in Canada than in the U. S."

Applying southern Ontario conditions, the cost for the heavy water plant is then about five mills per kwh, while its nearest competitor is more than six mills per kwh, Dr. Laurence said.

"In fact the heavy water plant is the only one of the seven that could compete with coal-fired stations in southern Ontario or Quebec."

The Canadian program also received some support from Congressman Chet Holifield, ranking Democrat on the joint Committee on Atomic Energy.

He said that when the USAEC submits its proposed 10-year program to the Joint Committee next month, any accelerated program should include full development of the reactor concepts which the Canadian AECL is pursuing.

Congressman Holifield outlined unsuccessful attempts since 1956 by the Joint Committee to get a heavy water-natural uranium prototype constructed in the U. S.

Finally, last year AEC sought proposals for the design and the construction of a 50,000 kw to 75,000 kw organic cooled, heavy water moderated, natural uranium plant, he said.

HOLDERS AND CLAMPS

Strippit Tool & Machine Co., a unit of **Houdaille Industries Inc.**, Brampton, Ont., announces the introduction of a new line of work holders and clamps for short run welding, soldering and brazing where the cost of permanent jigs is prohibitive.

Tariff Board Seeks Help In Chemical Tariff Study

OTTAWA (Staff) — The job of reorganizing the Canadian chemicals tariff is so complicated that the Tariff Board has decided to ask the chemicals industry for help in tackling it.

Canada's 600 chemical users and producers have been invited to make submissions to the board on two points:

- **How should the long list of items in the chemicals tariff (there are 203) be broken up** so that arguments about items dealing with related chemicals can be heard together?
- **What kind of chemicals tariff should we have** — i.e., are present levels of protection producing a properly balanced chemicals industry?

On question one, the chemicals industry has until Feb. 29 to file briefs with the Tariff Board; on question two, until March 15.

The board will circulate briefs received about both questions among the chemicals industry; for this reason companies making submissions have been asked to supply 250 copies.

The board will make up its mind about how to break up the chemicals tariff into convenient parcels on the basis of company submissions and opinions about the submissions.

It has set the further date of April 15 for receipt of comments by companies about submissions by other companies.

But there will be public hearings beginning May 2 about what kind of chemicals tariff we should have.

Sometime in the spring—as a result of submission about question one — the board will announce dates of the first hearings about actual chemical tariff items. These will likely be postponed to September to give the industry the summer to prepare for them.

The chemicals review — the biggest job ever tackled by the board—was originally assigned by the Liberal administration.

In September, 1958, Walter Harris, then finance minister, handed the board a list of 137 items to be reviewed. Not long after Fleming became finance minister he added 26 items o the Harris list.

The board was sidetracked away from chemicals by the textiles review, which the government considered more urgent.

Last fall, with the end of the textile hearings in sight, the board began looking into the chemicals question (**FP**, Oct. 31). At the same time, a chemical industry committee scoured the whole customs tariff again, looking for items which should be reviewed.

The result was to tack still a further 40 items onto the Harris-Fleming list.

As it now stands, the list of items to be reviewed contains practically all those which refer to chemicals or chemical products, with the exception of pharmaceuticals, petroleum products and adhesives.

See Good Year For Real Estate

Toronto Real Estate Board has set its real estate sales objective in photo co-op listings at $200 million for 1960.

"Indications are that 1960 will be another good year business-wise in Canada and I'm confident we can reach this objective," Hugh Shortill, president of the board and of **Shortill & Hodgkins Ltd.**, said.

"It simply means that we will have to sell 1,000 houses through our photo co-op listings each month during the year."

In 1959, Shortill told a meeting of real estate men in Toronto last week, volume of sales made through co-op listings increased 24% over 1958. Number of listings showed a 36% increase.

Average price of homes sold was $16,700 compared with $16,100 the previous year.

Altogether in 1959 over 9,700 homes were sold through the board's photo co-op listings. Total volume was around $159 million.

A warning: J. Peters, **Jos. A. Peters Ltd.**, warned that selling in the real estate field is becoming more competitive.

Company Report

Iron and Steel

PREMIER STEEL MILLS LTD., Edmonton, net profit of $676,915 for year ended Oct. 31, 1959, was 71% higher than previous year's $395,923.

Output increased substantially but continues below capacity. Company anticipates obtaining markets for products now being supplied from outside the province.

Considerable reduction in per ton operating costs was obtained due to increased efficiency and volume production.

Substantial savings in scrap preparation and improved charging material have resulted from the new hydraulic scrap shear which went into operation late in 1958.

The company has inventories of scrap metal on hand which are sufficient for approximately six months. Other sources of raw materials are being sought.

The name of the company's 80% owned subsidiary has been changed from **Edmonton Steel Fabricators Ltd.** to **Premier Steel Products Ltd.**

This subsidiary is included in accounts only to the extent of $100 which is the cost of exercising the option to purchase. Book value at time of acquisition was $318,800 and subsequent appraisal indicated that this amount should be increased by $93,000. However, loss for the 13 months following acquisition amounting to $173,500 after depreciation, reduces the book value before reappraisal to $145,300. As this amount still substantially exceeds cost, it was not considered necessary to make provision for subsidiary losses in the accounts of the parent.

President F. G. Winspear points out that while operations of the subsidiary are on the whole satisfactory, they are receiving close attention of the management.

Capital expenditures for subsidiary included a bench for the production of cold drawn steel and manufacturing equipment for nuts and bolts.

CONDENSED INCOME ACCOUNT

Years Ended Oct. 31:	1959	1958
Net oper. inc.	$1,714,152	$1,100,958
Add: Prof. sale sec.	2,835	16,605
Net earnings	1,716,987	1,117,563
Less: Deprec.	286,678	202,566
Interest	111,244	162,624
Amort. of disct.	6,150	6,150
Inc. tax†	656,000	350,000
Net profit	676,915	395,923
Less: Divds.	21,000	15,750
Surplus for year	655,915	380,173

†For income tax purposes, co. is claiming depreciation in excess of that shown in accts. As a result, taxes payable $81,000 in 1959 and $162,000 in 1958 have been deferred.

Earnings per Share and Dividend Record:		
6% Pref.	$193.40	$113.12
Paid	4.50	*4.50
Common	1.11	0.64
None paid.		

*Including initial paid June 2, 1958.

Shares o/s as at Oct. 31:		
6% Pref., $100 par	3,500	3,500
Common, n.p.v.	593,286	586,486

CONDENSED BALANCE SHEET

As at Oct. 31:	1959	1958
Cash		$334
Accts. rec.*	$1,860,415	634,134
Inventories	1,845,825	1,655,079
Prepaid exps.	8,239	17,732
Total curr. assets	3,714,479	2,307,279
Unamort. disct.	32,800	38,950
Investments	34,585	100
Fixed assets†	2,396,197	2,063,736
Total assets	6,178,061	4,410,065
Due bank	1,024,747	304,868
Accts., etc., pay.	1,378,932	658,845
Total curr. liabs.	2,403,699	1,163,713
Deferred inc. tax	376,500	295,300
Long-term debt	795,525	1,024,333
Capital stock	1,402,601	1,382,401
Earned surplus	1,199,833	543,918
*After res. of	unstated	68,544
†After deprec. of	815,565	506,140
Working capital	1,310,780	1,143,566

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Once a month, The Star Weekly carries an advertisement for a well-known insurance company. Every so often, one of these advertisements invites readers to write for a set of booklets, free, from the company. The response from Star Weekly readers has been tremendous. No wonder this advertiser is sold . . . and has been for the past twenty-nine years. He is one of the more than 500 leading Canadian advertisers who are sold on advertising in The Star Weekly.

STYROSPAN... rigid foam insulation that lasts a lifetime

Consider Styrospan* (Dow expanded polystyrene) when you select a low temperature insulation material. Styrospan is a rigid foam containing thousands of tiny, air-tight cells that form a permanent barrier against the passage of heat, moisture and vapour. Styrospan can be installed easily, quickly and economically; it has no odour or food value to attract insects or vermin . . . resists rot and mildew equally well; it is also the lightest of all rigid insulating materials — an important feature in "rolling stock" applications. The ideal low temperature insulation, Styrospan is also widely used for perimeter and plaster base insulation. Styrospan is one of the Dow family of chemically engineered building products which includes Styrofoam*, Saraloy* 400 elastic flashing and Roofmate*. Contact your nearest Dow sales office for further information.

The use of Styrospan as a combination low temperature insulation and plaster base eliminates the time and cost of furring and lathing. Light weight and ease of handling provide additional savings!

*TRADEMARK

DOW CHEMICAL OF CANADA, LIMITED • VANCOUVER • CALGARY • WINNIPEG • SARNIA • TORONTO • MONTREAL • SAINT JOHN

DOW CHEMICALS AT WORK